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# THE ILLUSTRATED LONDON

*ALMANACK*



1845

LONDON:  
PUBLISHED AT THE OFFICE OF THE ILLUSTRATED LONDON NEWS,  
198, STRAND.

SIXTIETH THOUSAND.

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1845-50

THE PRINCIPAL FIXED AND MOVEABLE FEASTS  
IN THE YEAR OF OUR LORD 1845.

Golden Number . . . . .	3	Dominiical Letter . . . . .	E
Epact . . . . .	22	Roman Indiction . . . . .	3
Solar Cycle . . . . .	6	Julian Period . . . . .	6558

Epiphany . . . . .	Jan. 6
Martyrdom of King Charles I. . . . .	30
Septuagesima Sunday . . . . .	Jan. 19
Quinquagesima—Shrove Sunday. . . . .	Feb. 2
Ash Wednesday . . . . .	9
Quadragesima—1st Sunday in Lent . . . . .	16
St. David . . . . .	March 1
Palm Sunday . . . . .	17
St. Patrick . . . . .	21
Good Friday . . . . .	23
EASTER SUNDAY . . . . .	25
Annunciation—Lady-Day . . . . .	30
Low Sunday . . . . .	April 23
St. George . . . . .	27
Rogation Sunday . . . . .	May 1
Ascension Day—Holy Thursday . . . . .	11
Pentecost—Whit Sunday . . . . .	18
Trinity Sunday . . . . .	20
Accession of Queen Victoria . . . . .	22
Corpus Christi . . . . .	24
Birth of Queen Victoria . . . . .	29
Restoration of King Charles II. . . . .	June 24
St. John Baptist.—Midsummer Day . . . . .	Aug. 13
Birth of Dowager Queen Adelaide . . . . .	Sept. 29
St. Michael.—Michaelmas Day . . . . .	Nov. 5
Gunpowder Plot . . . . .	30
St. Andrew . . . . .	30
Advent Sunday . . . . .	Dec. 21
St. Thomas . . . . .	25
Christmas Day . . . . .	

The year 5606 of the Jewish Era commences on October 2, 1845.  
The year 1261 of the Mahommedan Era commences on Jan. 10, 1845.  
Ramadân (Month of Abstinence observed by the Turks) commences on September 3, 1845.

LAW TERMS, 1845.

Hilary Term . . . . .	Begins Jan 11	Ends Jan. 31.
Easter . . . . .	April 15	— May 8.
Trinity Term . . . . .	May 22	— June 12.
Michaelmas . . . . .	Nov. 2	— Nov. 25.

UNIVERSITY TERMS, 1845.

Terms.	OXFORD.		CAMBRIDGE.	
	Begins.	Ends.	Begins.	Ends.
Lent . . . . .	Jan. 14	March 15	Jan. 13	Mar. 14
Easter . . . . .	April 2	May 10	April 2	July 4
Trinity . . . . .	May 14	July 5		
Michaelmas . . . . .	Oct. 10	Dec. 17	Oct. 10	Dec. 16

HOLIDAYS KEPT AT PUBLIC OFFICES.

At the BANK, the only holidays in the Dividend Offices are Good Friday and Christmas Day; in the Transfer Offices, besides the above, May 1, and November 1.—EAST INDIA HOUSE and EXCHEQUER, Good Friday and Christmas Day.—CUSTOM HOUSE, and the several PUBLIC DOCK COMPANIES, Christmas Day and Good Friday, and Her Majesty's Birth Day, May 24.—EXCISE and STAMP OFFICES, the Holidays are the same as in the Customs, with the addition of Whit Monday, Whit Tuesday, and May 29.

TABLE SHOWING THE PRICES WHICH STOCKS, YIELDING DIFFERENT RATES OF DIVIDEND, SHOULD RESPECTIVELY BEAR, IN ORDER TO YIELD THE SAME RETURN OF INTEREST, AND ALSO THE CORRESPONDING NUMBER OF YEARS' PURCHASE FOR LAND AND PERPETUAL ANNUITIES.

Interest Yearly.	3 per cent.	3½ per cent.	4 per cent.	5 per cent.	6 per cent.	8 per cent.	10½ p. cent.	Years' Purchase.
£. s. d.								
£. 0 0	100	116½	133½	166½	200	266½	350	33½
0 7	99	115½	132	165	198	264	346½	33
1 6	97½	114½	130	162½	195	260	341½	32½
2 6	96	112	128	160	192	256	336	32
3 6	94½	110½	126	157½	189	252	330½	31½
4 6	93	108½	124	155	186	248	325½	31
5 7	91½	106½	122	152½	183	244	320½	30½
6 8	90	105	120	150	180	240	315	30
7 9	88½	103½	118	147½	177	236	309½	29½
8 11	87	101½	116	145	174	232	304½	29
10 2	85½	99½	114	142½	171	228	299½	28½
11 5	84	98	112	140	168	224	294	28
12 9	82½	96½	110	137½	165	220	288½	27½
14 1	81	94½	108	135	162	216	283½	27
15 6	79½	92½	106	132½	159	212	278½	26½
16 11	78	91	104	130	156	208	273	26
18 5	76½	89½	102	127½	153	204	267½	25½
4 0 0	75	88½	100	125	150	200	262½	25
4 3 4	72	84	96	120	144	192	252	24
4 6 11	69	80½	92	115	138	184	241½	23
4 10 11	66	77	88	110	132	176	231	22
4 15 3	63	73½	84	105	126	168	220½	21
5 0 0	60	70	80	100	120	160	210	20
6 0 0	50	58½	66½	83½	100	133½	175	16½
7 10 0	40	46½	53½	66½	80	106½	140	13½
10 0 0	30	35	40	50	60	80	105	10

Years purchase is found by dividing the price of the Stock by the rate per cent., thus £100 ÷ 3 = 33½.

TRANSFERS AND DIVIDENDS OF THE PUBLIC FUNDS.

Name of the Stock.	Days of Transfer.	Due.	Hours.
Bank Stock . . . . .	Tu — Th Fr	April 5, Oct. 10	Hours for having, selling, and transferring, from 11 to 1; accepting, from 9 to 3; payment of dividends, from 9 to 11, and from 1 to 3; and 3 per Cent. Consols from 9 to 3 every day.
3 per Cent. Reduced . . . . .	Tu W Th Fr	Ditto	
3½ per Cent. Reduced . . . . .	Tu W Th Fr	Ditto	
3 per Cent. Consols . . . . .	Tu W Th Fr	Jan. 5, July 5	
Con. Long Annuities . . . . .	M — W — S	Apr. 5, Oct. 10	
3½ per Cent. New . . . . .	M Tu W Th Fr	Jan. 5, July 5	
3½ per Cent., 1818 . . . . .	Tu — Th Fr	Apr. 5, Oct. 10	
South Sea Stock . . . . .	M — W — Fr	Jan. 5, July 5	
3 per Cent. Old Ann. . . . .	M — W — Fr	Apr. 5, Oct. 10	
3 per Cent. New Ann. . . . .	Tu — Th — S	Jan. 5, July 5	
3 per Cent., 1751 . . . . .	Tu — Th — S	Ditto	
East India Stock . . . . .	Tu — Th — S	Ditto	
India Bonds . . . . .	— Interest due —	Mar. 31, Sep. 30	

Hours of Transfer, at the India House, from 9 to 1, Tuesdays and Thursdays; and 9 to 12, Saturdays. Dividends are paid from 9 to 2; Saturdays, from 9 to 1. The Transfer Days at the Bank and South Sea House are Tuesday, Wednesday, Thursday and Friday.

Tickets for preparing the Transfer of Stock must be given in at each office before one o'clock—At the India House before two.

Private Transfers may be made at other times than as above, the books not being shut, by paying, at the Bank and India House, 2s. 6d. extra for each Transfer—At the South Sea House, 3s. 6d.

Expense of Transfer in Bank Stock for £25 and under, 9s.; above that sum, 12s.; India Stock for £10 and under, £10 1s.; above that sum, £1 1s. South Sea Stock, if under £100, 9s. 6d.; above that sum, 12s.

Powers of Attorney for the Sale or Transfer of Stock to be left at the Bank, &c., for examination one day before they can be acted upon; if for receiving Dividends present them at the time the first Dividend is payable.

Probates of Wills, Letters of Administration, and other proofs of decease, must be left at the Bank, &c., for registration, from two to three clear days, exclusive of holidays.

Transfers may be effected on Mondays, by payment of 2s. 6d. each, from 11 to 3 o'clock; but on Saturdays, only till 1 o'clock, at the Bank and South Sea House.

BILLS AND NOTES.

searouse.

BILLS AND NOTES.		Not ex- 2 months.	Exceeding 2 months.
		s. d.	s. d.
£2 and not exceeding £5 5s.		1 0	1 6
Above 5 5	20	1 6	2 0
20	30	2 0	2 6
30	50	2 6	3 6
50	100	3 6	4 6
100	200	4 6	5 0
200	300	5 0	6 0
300	500	6 0	8 6
500	1000	8 6	12 6
1000	2000	12 6	15 0
2000	3000	15 0	25 0
Above	3000	25 0	30 0

BONDS AND MORTGAGES.

Any sum not exceeding		£ s. d.	Above 1000 and not exceeding		£ s. d.
Above £50 and not exceeding	£50	1 0	2000	6 0	
100	100	1 10	3000	7 0	
200	200	2 0	4000	8 0	
300	300	3 0	5000	9 0	
500	500	4 0	10000	12 0	
1000	1000	5 0			
Bonds, of every 1000 words above the first, 25s. Mortgages, 20s.					

APPRENTICES' INDENTURES.

Under £30		£ s. d.	For £200 and under £300		£ s. d.
For £30 and under £50	£50	2	300	400	20
50	100	3	400	500	25
100	200	6	500	600	30

LICENSES.

For Marriage, if special . . . . .	—	£5 0
Ditto, if not special . . . . .	—	0 10
For Bankers . . . . .	—	20 0
For Pawnbrokers, within the limits of the twopenny post . . . . .	—	15 0
Elsewhere . . . . .	—	7 10
For Appraisers . . . . .	—	0 10
For Hawkers and Pedlars, on foot . . . . .	—	4 0
Ditto, with one horse, ass, or mule . . . . .	—	8 0
Selling Beer, to be drunk on the Premises . . . . .	—	3 3
Ditto, not to be drunk on the Premises . . . . .	—	1 1

WINDOW TAX.

Windows.	Duty per Annum.	Windows.	Duty per Annum.	Windows.	Duty per Annum.	Windows.	Duty per Annum.
8	£ s. d.	16	£ s. d.	24	£ s. d.	32	£ s. d.
9	0 16 6	17	3 18 6	25	7 5 9	33	10 13 3
10	1 1 0	18	4 7 0	26	7 14 3	34	11 3 6
11	1 8 0	19	4 15 3	27	8 2 9	35	11 10 0
12	1 16 3	20	5 3 9	28	8 11 0	36	11 18 3
13	2 4 9	21	5 12 3	29	8 19 6	37	12 6 9
14	2 13 3	22	6 0 6	30	9 8 0	38	12 15 3
15	3 1 9	23	6 9 0	31	9 16 3	39	13 3 6
	3 10 0	24	6 17 6	32	10 4 9	40	13 12 0

Farm-houses belonging to Farms under £200 a year, are exempt.

By cap. 17, 3 and 4 Vict., an additional £10 per cent. is imposed upon all the Assessed Taxes, Customs, and Excise.





# JANUARY

		ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.					SUN RISES	SUN SETS.	M AGE	High Water at Lon Bridge, morn. & ev.			Flowers. — The
M	W												Christmas rose flowers
D	D												at this season; several
1	W	Feast of the Circumcision—Union with Ireland, 1801					8	8 4	0 21	6 32	6 59		plants in pots, kept
2	Th	Edmund Burke born, 1730—Lavater died, 1801					8	8 4	1 22	7 24	7 51		warm. Very few wild
3	F	Lucien Buonaparte brother of the Emperor of France					8	8 4	2 6	8 21	8 57		flowers are to be seen;
		sought a refuge in England, 1811—General Monk died, 1670											the principal one that
4	S	Roger Ascham died, 1568					8	8 4	3 24	9 34	10 13		arrests the attention
5	S	2ND SUN. AFT. CHRISTMAS—Duke of York died, 1827					8	8 4	4 25	10 51	11 28		is the little daisy.
6	M	The Epiphany, from the Greek <i>Επιφάνεια</i> , an <i>Appearance</i> , or Apparition is kept in commemoration of the manifestation of our Saviour to the Gentiles, and was first observed A. D. 813—Old Christmas Day					8	7 4	5 26		0 4		KITCHEN GARDEN.
7	Tu	Fenelon d. 1715—Princess Charlotte of Wales b. 1796					8	7 4	7 27	0 37	1 6		Trench and insure;
8	W	St. Lucian, the first named saint in the Romish Calendar was a Presbyter at Antioch, and suffered martyrdom for eulogising the Christians before the Emperor Maximianus—Galarus, A. D. 201—New Moon					8	6 4	8 0	1 35	2 1		prepare hotbels for
9	Th	Archbishop Laud beheaded 1645—Cape of Good Hope taken, 1800					8	6 4	9 1	2 25	2 52		aspagrus, cucumbers,
10	F	James Watt born, 1736—Linnaeus died, 1778—Royal Exchange burnt, 1835—The Bude Light first publicly used in London, 1842					8	5 4	11 2	3 16	3 39		mint, pota'es, and the
11	S	Hilary Term begins					8	5 4	12 3	4 1	4 24		small salads. Now the
12	S	1ST SUN. AFT. EPIPH.—Outbreak at Sheffield, 1840					8	4 4	14 4	4 46	5 6		brown Dutch and
13	M	Plough Monday—the day derives its appellation from the custom of the peasantry returning to their labours after the festivities of Christmas. The morning was devoted to the examination of their ploughs and implements, and with the day ended the pastimes of the season—C. J. Fox born, 1749—Cambridge Term begins					8	3 4	15 5	5 27	5 49		grand admirable cab-
14	Tu	Oxford Term begins					8	2 4	17 6	6 7	6 29		ages, cured parsley
15	W	Queen Eliz. c. at Westminster, 1559—Dr. Aikin d. 1747					8	1 4	18 6	6 51	7 12		for transplanting;
16	Th	Gibbon died, 1794—Battle of Corunna, 1809					8	0 4	20 8	7 35	8 0		frame p'as, horn car-
17	F	Robin Hood died, 1274—Dr. Franklin born, 1706—First stone of the New Royal Exchange laid by Prince Albert, 1842					7	59 4	21 9	8 31	9 9		rots, mazagan beans,
18	S	St. Prisca martyred, A. D. 47					7	58 4	23 10	9 45	10 22		onions (to be allowed
19	S	SEPTUAGESIMA SUNDAY, instituted by Gregory I. to be observed as the commencement or preparation for the solemn fast of Lent—G. erenicus born, 1473—Earl of Surrey beheaded, 1647					7	57 4	24 11	11 2	11 38		to grow large); plant
20	M	St. Fabian martyred, A. D. 251—American Independence acknowledged 1783					7	56 4	26 12		0 15		out exbange plants to
21	Tu	St. Agnes martyred, A. D. 306—New South Wales colonized, 1788—Louis XVI. guillotined, 1793					7	55 4	28 13	0 41	1 5		succeed those which
22	W	St. Vincent martyred, A. D. 304—Lord Byron b. 1788					7	54 4	30 14	1 28	1 49		have been planted out
23	Th	FULL MOON—W. Pitt d. 1806—Duke of Kent d. 1820					7	53 4	31 0	2 6	2 26		in autumn.
24	F	Frederick the Great b. 1712, South Sea bubble ex. 1721					7	52 4	33 16	2 42	3 0		THE FARM.—In
25	S	Conversion of St. Paul—Robert Burns born, 1759					7	51 4	35 17	3 17	3 32		frosty weather carry
26	S	SEXAGESIMA SUNDAY—Brazil discovered, 1496—Prince of Wales christened, 1842					7	50 4	36 18	3 49	4 5		out manure for grass
27	M	Mozart born, 1756—Duke of Sussex born, 1773					7	49 4	38 19	4 21	4 37		lands; and make such
28	Tu	Admiral Byngshot by sentence of a Court Martial, 1757					7	47 4	40 20	4 56	5 13		preparations for the
29	W	Swedenborough born, 1689—George III. died in the 60th year of his reign, 1820—First meeting of the Reformed Parliament, 1833					7	46 4	42 21	5 31	5 51		will allow, taking care
30	Th	Charles I beheaded at Whitehall, 1648					7	44 4	44 22	6 9	6 31		at the same time, that
31	F	Hilary Term ends—Guido Fawkes executed, 1606—Frost and others transported for the riots at Newport, 1840					7	43 4	45 23	6 54	7 19		the live stock espec-



JANUARY, 1845.

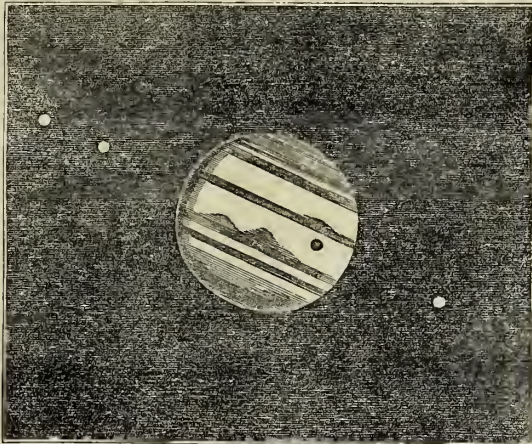
## SONNET.

GATE of the year! where would'st thou lead us now?  
On still through Winter's path?—or wilt, ere long,  
Thaw the cold icicles that point thy brow,  
And wend us to a way of woodland song  
And Spring-time, flow r-embroider'd road of light?  
Art thou like Susas's portals, which disclose  
Unto the Alpine traveller, the sight,  
All suddenly, of fair Italia's rose  
And vine, and honeysuckle interlac'd?  
Or has December left a will behind  
That thou should'st on perpetuate his snows,  
And make the year like that he left, a waste?  
Is not young Spring a wooer warm and kind—  
Wilt not for her thy rigid locks unbind?

W.

## ASTRONOMICAL APPEARANCES.

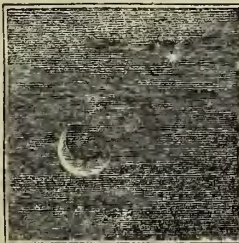
THE frosty nights of January are usually favourable for astronomical observations. So "resplendent in brightness" are the hosts of heaven on such occasions, they should be embraced with more than ordinary zeal by every student of the works of God.



From careful calculations we find, at the commencement of this month, the planet Mercury will be visible near the western horizon about half-an-hour after the setting of the sun. Saturn may be seen (if the air should be very clear) a few degrees above him. But the most interesting planet at this time is Jupiter; for throughout this month, during the evenings, he will deck the southern and western heavens with his majestic rays, when his belts and satellites will interest and instruct the telescopic observer. The cut at the head of this column is a view of Jupiter, with his luminous attendants, as he will appear at 30 minutes past 6 o'clock in the evening of the 10th. But it



also exhibits a phenomenon of frequent occurrence through the year, for a view of which, youthful and amateur observers should be on the alert. We allude to a transit of one of Jupiter's satellites across the face of the planet. These satellites or "moons" are four in number, and as they perform their several revolutions in different periods, their relative positions are of course infinitely varied; but they are generally arranged nearly in a straight line with an oblique direction. Sometimes two of them are seen on one side of the planet, and two on another; sometimes two only are visible, while the other two are eclipsed either by the body or the shadow of Jupiter; and sometimes all the four may be seen on one side, and in a straight line from the planet, in the order of their respective distances. In the cut two are shown on the left side; one like a black ball on the face of the planet; and one on the right side of the planet.



On the 2nd day of this month, the first satellite will be eclipsed.

On the 12th, the second satellite.

On the 18th, the first.

On the 19th, the second.

On the 10th day of the month, as shown in the cut, the first satellite will pass over the face of the planet.

On the 20th, the second will make a similar transit.

In addition to these phenomena, the progress of a shadow on the face of the planet, from one of the satellites, forms an interesting spectacle.

The eclipses of Jupiter's satellites furnish navigators with the most important signals for determining the longitude of places on the earth. Tables of them are accordingly inserted in the Royal Nautical Almanack.

Mars is to be seen in the south-east before sunrise; on the morning of the 4th, he will appear in the neighbourhood of the crescent moon, according to the accompanying illustration, which is drawn to correspond with a view by the naked eye. Venus is a splendid object at day-break, and may be readily identified by her excessive brightness. On the 6th, she will appear as the comely harbinger of morn, in the neighbourhood of our satellite, as exhibited in the subjoined illustration.

## NOTICES ON NATURAL HISTORY, &amp;c.

JANUARY.



GOLDEN CRESTED REGULUS.

THIS curious little bird delights in the largest trees, such as oaks, elms, tall pines, and firs, particularly the first, in which it finds both food and shelter; in these it builds its nest, which is suspended from a branch by a kind of cordage made of the materials of which the nest is chiefly composed; it is of an oblong form, having an aperture on one side, and is made principally of moss, lined with the softest down, mixed with slender filaments; the female lays six or seven eggs, scarcely larger than peas, which are white, sprinkled with very small spots of a dull colour. These birds are very agile, and are almost continually in motion, fluttering from branch to branch, creeping on all sides of the trees, clinging to them in every situation, and often hanging like the titmouse. Their food consists chiefly of the smallest insects, which they find in the crevices of the bark of trees, or catch nimbly on the wing; they also eat the eggs of insects, small worms, and various sorts of seeds.

They remain in this country all the year through, and are even observed to be more numerous in the winter than in the summer.

Colonel Montagu, who timed the visits of a female to her nest of eight young ones which he kept in his room, found that she came once in each minute and a half, or two minutes, or, upon an average, thirty-six times in an hour; and this continued full sixteen hours in a day. The male would not venture into the room; yet the female would feed her young while the nest was held in the hand.

The month of January, if not clad in snows and icicles, is generally borne on the wings of the tempest. Various tribes of birds flock round farm houses and out buildings in search of food. The thrush is seen under sunny hedges and southern walls in pursuit of snails, which he destroys in abundance, particularly in hard winters. The nuthatch is heard, and larks congregate and fly to the warm stubble for shelter. Field-fares and finches are seen in flocks.

When the temperature of the air becomes so low that vegetable life would be in danger of destruction, the moisture which was held suspended in the atmosphere is let fall in the shape of snow, and so deposited on the surface in a succession of strata or layers, which form the warmest mantle which could be thrown over the earth to guard and preserve her offspring. The air which is interposed or held captive between each layer is a very bad conductor of heat, and at once prevents the internal warmth of the earth from escaping, and the external cold from reaching the insects, animals, and, above all, the plants. In the colder regions the fur of hares and other animals undergoes a change which renders it a most perfect protection against the severity of the weather. For food, hares and birds are often reduced to great extremities; and at this season we see many animals, which at other times regard man as their natural enemy, betake themselves to him for succour and protection. The kindly habits of the robin-redbreast in this way are familiar to all; and it strives to reward man, for any little crumbs bestowed upon it, by a grateful song, which not even the storms and cold of this month can silence. Nor in the unceasing perseverance with which the robin endeavours to cheer us is it quite alone; for if we go out into the woods, we shall bear the wood-lark mingling its notes with the blast and with the creaking and murmuring of the branches.

When the weather is not very cold, this period of the year is favourable for some of the operations of agriculture, such as conveying manure to the fields, repairing hedges, putting trenches and ditches in a good condition, and examining and improving the state of the farming implements.

ST. PAUL'S DAY (Jan. 25) has been vulgarly esteemed ominous of the weather of the year; hence, an old proverb says—

If St. Paul's Day be fair and clear,  
It doth betide a happy year;  
But if by chance it then should rain,  
It will make dearer all kinds of grain:  
And if the clouds make dark the sky,  
Then neats and fowls this year shall die;  
If blustering winds do blow all off,  
Then wars shall trouble the realm full oft.  
All superstition from thy breast repel,  
Let credulous boys and prattling nurses tell  
How, if the Festival of Paul be clear,  
Plenty from liberal horn shall strew the year,  
When the dark skies dissolve in snow or rain,  
The labouring bind shall yoke the steer in vain,  
But if the threatening winds in tempests roar,  
Then War shall bathe her wasteful sword in gore.  
Let no such vulgar tales debase thy mind,  
Nor Paul, nor Swithun, rule the clouds and wind.





THE MOON.				M	D	W	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.				SUN RISES	SUN SETS	M AGE	High water at Lon. Bridge, morn. & ev.	FAVIT.—The pruning of fruit trees should now be completed; all blossoms, particularly the apricot, should be protected now; ferns, by being thrust by their leaf stalks under the branches of the trees, will form a most excellent covering for apricot trees particularly, and they should not be taken off until the fruit is as big as a hazel nut.	
New Moon 6th 6 3 A. First Qr. 14 4 59 M. Full Moon 22 6 46 M.				1	S		Partridge shooting ends—York Cathedral fired, 1829 —The fortifications of Paris voted by the French Chambers, 1841				7	41	4	47	24	7 45 8 19
FEBRUARY is so named from <i>Februus</i> , <i>Februaria</i> , or <i>Februialis</i> , names of Juno, to whom the Romans were accustomed to offer sacrifice. Our Saxon ancestors designated it Sprout-kele, because the kale or cole-wort then began to sprout; an event of much importance in those days, it being the chief sustenance to the husbandman, and the water in which it was boiled was a common medicine with them, as well as with the Romans. In later times they called this Sol-month, or Pancake-month, because cakes were offered to the sun.				2	S		QUINQUAGESIMA, or SHROVE SUNDAY—so called from the preter tense of the Saxon verb to <i>shrive</i> , i. e. to confess preparatory to the more religious observance of Lent—Prior to the Reformation every communicant throughout the kingdom was obliged, individually, to confess to his parish priest on this day—Purification, or Candlemas, a festival instituted in honour of the B. V. Mary				7	40	4	49	25	8 59 9 42
				3	M		St. Blaise, an Armenian Bishop, patron of Woolcomb- ers, martyred under Dioclesian, A.D. 299				7	38	4	51	26	10 27 11 12
				4	T		SHROVE TUESDAY—After the required confession had been made on the preceding Sunday the people were permitted to indulge in festive amusements, although not allowed to partake of flesh. Hence arose the custom of eating pancakes and fritters on Shrove-tide. On this day of authorised indulgence all kinds of recreation were permitted, and the now exploded diversions of cock-fighting and cock-throwing was in much repute. The origin of the latter brutal custom is traced to a conspiracy against the Dances, which was rendered abortive, by the crowing of some cocks, and the English, to revenge their disappointment, instituted the custom of knocking them on the head on Shrove Tuesday, the day on which it happened—Stoppage of the United States Bank, and suspension of the Philadelphia Banks, 1840				7	37	4	53	27	11 53 —
				5	W		ASH WEDNESDAY—Lent begins—This day was conspicuous in the history of the Ancient Church for the severity of discipline exercised on penitents. The name is derived from the sprinkling of ashes upon the offenders—St. Agatha martyred under Decius, A.D. 252—Sir R. Peel b., 1788				7	35	4	54	28	0 26 1 0
Things to be remembered in February—Candlemas-day is on the 2nd. Shrove Tuesday on the 4th. Valentine's-day on the 14th. Anglers should set their tackle in order.				6	Th		Dr. Priestley died, 1804				7	33	4	56	●	1 28 1 53
				7	S		Mary Queen of Scots beheaded at Fotheringhay Castle,				7	32	4	58	1	2 18 2 40
				8	F		First Meeting in London of the Anti-Corn Law Association, 1842				7	30	5	0	2	3 3 3 24
				9	S		QUADRAGESIMA—1st Sunday in Lent				7	28	5	2	3	3 44 4 3
				10	M		Queen Victoria married, 1840—Henry Lord Darnley, 2nd husband of Mary Queen of Scotland, and father of James I. of England, murdered 1567—Property Tax abolished, 1815				7	26	5	4	4	4 24 4 42
IN SEASON. FISH—Barble (the spawn of this fish is poisonous), brill, carp, cod, crabs, dabbles, dace, eels, flounders, haddocks, herrings, ling, lobsters, mussel, oysters, perch, pike, plaice, salmon, shrimps, skate, snails, sole, tench, turbot, whiting. MEAT AND POULTRY as in January, with the addition of chickens and ducklings, which are now to be bought at high prices; though they are best when they are cheapest. GAME—Hares and wild fowl. VEGETABLES—Broccoli, leeks, parsley (and through the year), parsnips. FLOWERS.—If the weather be mild, a walk in the garden will discover to us many pleasing objects; among these the botanist and admirer of nature's beauties will not consider the modest snow drop beneath his notice. Lantana is still in blossom; the buds of the lilac tree are forward. Crocuses are in bloom.				11	T		Washington born, 1723—Shenstone died, 1763				7	25	5	5	5	1 5 19
				12	W		Lady Jane Grey and her husband beheaded in the Tower, 1554				7	23	5	7	6	5 35 5 54
				13	Th		Massacre of Glencoe, 1691—Sir William Blackstone died, 1780—Duc de Berri assassinated, 1821				7	21	5	9	7	6 13 6 30
				14	F		St. Valentine, a Bishop, martyred under Claudius, A.D. 271—The origin of "choosing a valentine" is involved in obscurity, though supposed to have grown out of the Pagan custom of drawing the names of girls, in honour of Juno, on this day—Captain Cooke killed at Owyhee, 1779—First Quaker took his seat in Parliament as member for Durham, 1833				7	19	5	11	D	6 52 7 12
				15	S		The National Debt commenced, 1500, amounted in 1841 to 772 millions sterling; the cost of management alone amounting to £28,556,324 19s. 03d.				7	17	5	13	9	7 38 8 7
				16	S		2ND SUNDAY IN LENT				7	15	5	14	10	8 43 9 25
				17	M		Battle of St. Albans, 1461—Michael Angelo died, 1564				7	13	5	16	11	10 8 10 51
				18	T		Martin Luther died, 1546				7	11	5	18	12	11 31 —
				19	W		Galileo born, 1564				7	9	5	20	13	0 7 0 37
				20	Th		Voltaire born, 1694—Duke of Suffolk beheaded, 1554				7	7	5	22	14	1 1 1 22
				21	F		Archbishop Cranmer burnt, 1556				7	5	5	24	15	1 41 2 1
				22	S		Sir Joshua Reynolds died, 1792				7	2	5	25	○	2 19 2 36
				23	S		3RD SUNDAY IN LENT				7	1	5	27	17	2 53 3 9
				24	M		St. Matthias, Apostle and Martyr, beheaded A.D. 62— —Duke of Cambridge born, 1774				6	59	5	29	18	3 26 3 42
				25	T		Earl of Essex beheaded, 1601—St. Christ. Wren d. 1723				6	57	5	31	19	3 58 4 15
				26	W		Napoleon embarked from Elba, 1815—J. P. Kemble died, 1823.				6	55	5	33	20	4 34 4 52
				27	Th		Hare hunting ends—Dr. Arbuthnot died, 1735				6	53	5	34	21	5 8 5 28
				28	F		Montaigne born, 1533—Lord Ellenborough arrived in India, and was immediately proclaimed Governor general, 1842				6	51	5	36	22	5 47 6 8



FEBRUARY, 1845.

## SONNET.

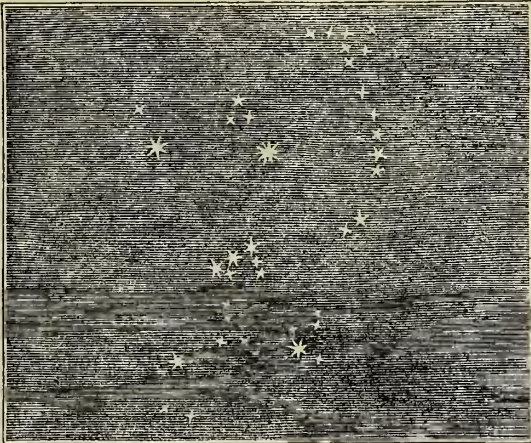
At length grim Auster with his snowy head  
And gloomy countenance, and sable wings,  
Forth from the cave of Æolus hath sped  
And o'er the land his varied winter flings.  
Along the pathway of the storm he wends,  
Sometimes enwrapt deep in his dusky clouds,  
Anon a trench'rous sun-beam forth he sends,  
And the next moment all again enshrouds—  
With scudding mists he hides the mournful moon  
That weeps behind them for a glimpse of earth,  
Then for awhile reveals her, and as soon  
Makes the Night dark as ere Creation's birth.  
Thus 'tis with Man—now bright—now dim appear  
The hopes and joys of each succeeding year!

W.

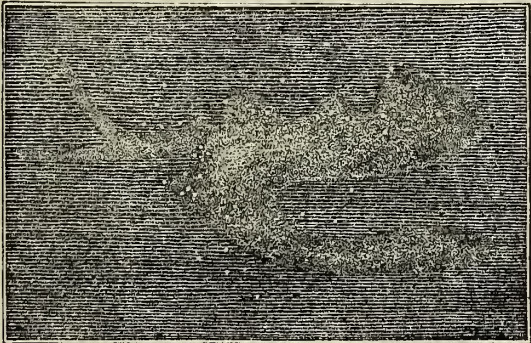
## ASTRONOMICAL APPEARANCES.

"Orion's beams! Orion's beams!  
His star, gemmed belt, and shining blade;  
His isles of light, his silvery streams,  
And gloomy gulfs of mystic shade."

We have here given a representation of the glorious constellation Orion, which, throughout this month, shines with conspicuous and emphatic beauty in the southern heavens.

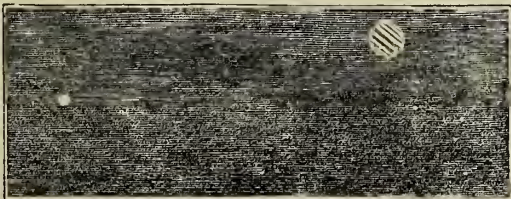


The most remarkable nebula in the heavens is that which appears in what is absurdly called the "sword handle" of Orion; and, as this month is a good one for its observation, we have subjoined an accurate drawing of its appearance. This wonderful group is without doubt a distant universe, spread in the illimitable depths of space, and but just revealed to human eyes to humble pride and elevate the immortal affections of observers. He who "tellet the number of the stars" is the same merciful Creator who "healeth the broken in heart." From long-continued surveys of this famous



nebula, there is reason to believe it has undergone great changes since it was first observed by Huzgens in 1656; but whether the changes—like those in our own planet—have consisted in a progress towards more highly organised existence, is, of course, a matter of extreme speculation.

Venus will be visible during the first week, a little before sunrise, near the south-eastern horizon. Mars is to be seen at the break of day; and Jupiter amid the evening twilight. On the evening of the 7th, Jupiter will be so near Uranus, or the Georgium Sidus, that both planets may be seen at the same time, if the telescope has a tolerably large field of view. The cut in



the margin shows the appearance of Jupiter with his Satellites, and Uranus, through an inverting telescope. Those who never saw this distant planet should embrace this opportunity, as they will find Jupiter a good guide to him.

## NOTICES ON NATURAL HISTORY, &amp;c.

FEBRUARY.



## THE THRUSH.

The thrush is distinguished among our singing birds by the clearness and fulness of its note; it charms us not only with the sweetness, but the variety of its song, which it begins early in the Spring, and continues during part of the Summer. The female builds her nest generally in bushes; it is composed of dried grass, with a little earth or clay intermixed, and lined with rotten wood. She lays five or six eggs of a pale blue colour, marked with dusky spots. Although this species is not considered with us as migratory, it has nevertheless been observed in some places in great numbers during the Spring and Summer, where not one was to be seen in the winter, which has induced an opinion that they either shift their quarters entirely, or take shelter in the more retired parts of the woods. The thrush is migratory in France: M. de Buffon says that it appears in Burgundy about the end of September, before the redwing and fieldfare, and that it feeds upon the ripe grapes, and sometimes does much damage to the vineyard. The females of all the thrush-kind are very similar to the males, and differ chiefly in a less degree of brilliancy in the colours.—*Bewick.*

We observed this summer (1829) two common thrushes frequenting the shrubs on the green in our garden. From the slenderness of their forms, and the freshness of their plumage, we pronounced them to be birds of the preceding summer. There was an association and friendship between them, that called our attention to their actions; one of them seemed ailing, or feeble from some bodily accident; for though it hopped about, yet it appeared unable to obtain sufficiency of food. Its companion, an active sprightly bird, would frequently bring it worms or bruised snails, when they mutually partook of the banquet; and the ailing bird would wait patiently, understand the actions, expect the assistance of the other, and advance from his asylum upon its approach. This procedure was continued for some days; but after some time we missed the fostered bird, which probably died, or by reason of its weakness met with some fatal accident.—*Journal of a Naturalist.*

In February the woodlark commences his sweet lays; the blackbird, and song thrush are heard. Tomtits are seen hanging on the eaves of barns and thatched out-houses, particularly if the weather be snowy and severe. The yellow-hammer and chaffinch are heard towards the end of the month. Rooks revisit their breeding-trees, the stone-curlew clamour and frogs croak. The hedge-sparrow sings, and our old friend the robin cheers us with his song. The most conspicuous of early insects is the indefatigable bee.

THE brief visits of the sun are, now, generally sufficient to bring out a few flowers. In our walks in the garden, if the weather prove mild, we shall discover many pleasing objects; among these, the admirer of nature's beauties will not consider the snow-drop and the crocus beneath his passing notice. The bloom buds of fruit-trees may be seen to swell every day. The laurustinus is still in blossom, and so is the china-rose. The buds of the lilac-tree are very forward; and the green-house is an object of attraction. The young lambs also now call for the attention of the shepherds. The snows thaw; the icy pools break up. The snow holds mingled with it more of the principles or elements which are favourable to vegetation than common rain water, so that the melted snow, sinking into the earth, enriches it with many of the salts most useful to nourish the plants which are destined to spring up soon afterwards. A provision is thus prospectively made to ensure a proper supply of food to every seed

— which, in her warming lap,  
Our mother-earth doth covetously wrap.

These begin slowly to swell and germinate, so as about the beginning of the following month to appear with their young shoots a little above the surface, and faintly to renew the verdant covering of the soil. A few insects may also be discovered, and now and then, on a very sunny day, the brimstone-butterfly surprises us while flitting on the yet chilly breeze: the leaves of the elder also begin to expand: the mezerion puts forth its buds: the mistle-thrush, the yellow-hammer, and the sky-lark resume their pleasing strains, uniting with the birds of the former month in celebrating the return of Spring, of which they furnish the earliest and most unequivocal proofs. Other proofs, however, are not wanting, such as the blossoming of the willows, which hang out their yellow catkins as signals to the bees that they may again begin their industrious career: while the hazel makes preparations, by its flowering, to secure to the squirrel a store for its winter food.

These various indications of returning warmth excite emotions of joy and gladness in every mind; and the first notes of that general concert begin to be sounded which is to receive its full strength and power in May and June. The lover of Nature enjoys this in its utmost degree; and those who fail to cultivate an acquaintance with Nature and her works lose more than can be compensated for by all the artificial usages of life.





# MARCH

## THE MOON.

Last Qr. 1st 10 13 M  
New Moon 8th 6 36 A  
First Qr. 16th 1 52 M  
Full Moon 23rd 5 18 M  
Last Qr. 30th 5 0 A

MARCH was the first month of the ancients; so named by Romulus, from the heathen deity, Mars. Our Saxon forefathers called it *Lenet-month*, literally Spring month; Lenet is also synonymous with 'length' in our language, and in this month the days exceed the night in length. It was likewise called by them *Rhed-month*, from Rheda, one of their deities, to whom sacrifices were offered in March; and from *reed*, a council, this being the month wherein wars or expeditions were undertaken by the Gothic tribes. They also called it *Hyd-month*, or the Stormy month.

## IN SEASON.

**FISH.**—Brill, carp, cockles, cod, crabs, dabbles, dory, cels, flounders, hogs, loasters, mussels, oysters, perch, pike, plaice, prawns, salmon, skate, shrimps, smelts, soles, tench, turbot, whiting.

**MEAT** is in February. Veal is best from March to July.

**GAME.**—Wild fowl. Poultry is in greatest perfection when it is most plentiful. It is generally dearest from March to July, and cheapest about September, when the game season commences, and the weather being cooler, will allow it to be kept longer.

**VEGETABLES.**—Broccoli, parsnips, radishes, small salad, and (through the year), sea-kale, spinach (Spring).

**FRUIT.**—The end of this month should not be allowed to pass before the whole of the fruit trees are pruned; the fig tree, however, must be excepted, as that should not be touched till the month of April.

## ANNIVERSARIES, OCCURRENCES AND FESTIVALS.

	M	D		SUN RISES.	SUN SETS.	M AGE	High Water at Lon. Bridge, morn. & even.
1	S		St. David, Tutelary Patron of Wales, died, 544	6 46	5 40	6	31 6 58
2	S		4TH SUNDAY IN LENT. St. Chad, Bishop of Lichfield died, A.D. 672—John Wesley, founder of the sect of Methodists, died, 1791	6 44	5 42	24	7 26 8 2
3	M		Boileau died, 1711—Otway born, 1651	6 42	5 43	25	8 43 9 27
4	Tu		Saladin died, 1193	6 40	5 45	26	10 15 10 59
5	W		Battle of Barossa, 1811—Dr. Parr died, 1825	6 37	5 47	27	11 44
6	Th		Spring Quarter commences—Michael Angelo b. 1475	6 35	5 48	28	0 20 0 47
7	F		St. Perpetua martyred under Severus, A.D. 205—Bank of England virtually stopped payment, 1797	6 33	5 50	29	1 15 1 40
8	S		Raphael born, 1483—William III. died, 1702	6 31	5 52	30	2 2 2 24
9	S		5TH SUNDAY IN LENT—David Rizzio assassinated, 1566—Reform Bill introduced to the House of Commons, 1831	6 29	5 54	1	2 44 3 2
10	M		Sir Hugh Myddleton, projector of the New River Company, died, 1589	6 26	5 55	2	3 20 3 39
11	Tu		The Emperor Napoleon married an Archduchess of Austria, 1810—Benjamin West died, 1820—The Bishops excluded Parliament, 1640	6 24	5 57	3	3 57 4 14
12	W		St. Gregory, Bishop of Rome, martyred, 590—Chelsea Hospital founded, 1682	6 22	5 59	4	4 31 4 49
13	Th		Earl Grey born, 1764—Dr. Priestley born, 1738	6 20	6 3	5	5 5 5 21
14	F		Klopstock, author of "the Messiah," died, 1803	6 17	6 2	6	5 40 5 58
15	S		New London Bridge commenced, 1824	6 15	6 4	7	6 16 6 39
16	S		PALM SUNDAY—The day of our Saviour's entry into Jerusalem. The Palm was solemnly blessed, and some of its branches burnt to ashes to be used by the priests on the following year—Gustavus III. King of Sweden, assassinated, 1792—Battle of Culloden, 1746	6 13	6 7	8	6 59 7 24
17	M		St. Patrick, Tutelary Saint of Ireland, died at Ulster, A.D. 493	6 10	6 6	9	7 56 8 33
18	Tu		Cambridge Lent Term ends—Horne Tooke died, 1812	6 8	6 9	10	9 18 10 0
19	W		Oxford Lent Term ends—Louis XVIII. fled from Paris, 1815	6 6	6 11	11	10 42 11 20
20	Th		King of Rome born, 1811—Night and Day equal	6 4	6 12	12	11 55
21	F		GOOD FRIDAY—Benedict—Duc d'Enghien shot, 1804	6 1	6 14	13	0 23 0 48
22	S		The first Charity School of the Protestant Church opened in England, 1638—Goethe died, 1832	5 59	6 16	14	1 8 1 29
23	S		EASTER SUNDAY, a High Festival of the Church, in commemoration of the resurrection of our Divine Expiator—Southwark Bridge opened, 1819—Insurrection at Marsailles, 1841	5 57	6 17	15	1 47 2 51
24	M		Easter Monday—Earl of Chesterfield died, 1773	5 55	6 19	16	2 20 2 39
25	Tu		Lady Day—The Feast of the Annunciation instituted A.D. 350—Queen Elizabeth died, 1603	5 52	6 21	17	2 56 3 13
26	W		Prince George of Cambridge born, 1819—Mrs. Fitzherbert died, 1837	5 50	6 22	18	3 34 3 51
27	Th		Peace of Amiens, 1802—Gunpowder introduced, 1380	5 48	6 24	19	4 9 4 29
28	F		General Abercrombie died, 1801	5 45	6 26	20	4 49 5 9
29	S		Siege of Acre, 1799	5 43	6 27	21	5 32 5 54
30	S		LOW SUNDAY took its appellation from the observances of the church being of a minor degree to those of Easter—Sicilian Vespers, 1282—Dr. Hunter died, 1783—Allied Sovereigns entered Paris, 1814.	5 47	6 29	22	6 22 6 49
31	M		Beethoven died, 1827	5 43	6 31	23	7 19 7 54

**FLOWERS.**—The superabundant moisture of the earth being dried up, the process of vegetation is gradually brought on; those trees which in the last month were beginning to put forth their buds are now exhibiting their leaves, and the various appearances of nature announce the approach of Spring. Meteoron is now in its beauty, and pilewort presents its golden flowers on the moist banks of ditches.

**KITCHEN GARDEN.**—In open borders sow asparagus, cabbages, carrots, curled and Hamburg parsley, Neapolitan kale, parsnips, onions, &c.; plant out such vegetables as have been already sown.

**THE FARM.**—Business connected with the farm becomes brisk in March, especially if the weather prove dry. On forward soils barley sowing, at all events ploughing for it becomes general. Oats should be sown at this time; also clover, peas, &c. The live stock requires still to be well kept, especially the ewes, or the lambs will exhibit the consequences of neglect. Prepare potato ground, and plant towards the end of the month. Plant hops. Cut alders. Cattle may be turned into water-meadows. Destroy moles. Top dress young wheats. Kill bacon hogs.

**Things to be remembered in March.**—1. Auditors and Assessors to be elected under the Municipal Reform Act. 2. Collect St. Patrick's Day. On the Thursday after the 25th, the Poor Law Guardians to be appointed. 3. Overseers appointed on the 25th, or within fourteen days after; and in parishes maintaining their own highways, surveyor or surveyors to be appointed on the same day.



MARCH, 1845.

## SONNET.

THOU variable Tyrant of the Year!  
 MARCH! in thy snow or frosty vestment clad,  
 Or making Nature weep a general tear,  
 Thou hast some attributes which make us glad—  
 Thou bring'st the sunny April showers more near,  
 And therefore do we take thy empass,  
 Rude as it is, to be precursor sent  
 Saying: "At length the seasons do relent,  
 And flowery May all joyous we shall see!"  
 Mild Zephyr soon will kiss the buds and flow'rs,  
 And through the disentangled woods and bow'rs  
 Breathe his warm breath upon the waiting things  
 That long to have their winter-closed springs  
 Unlock'd as throat of tuneful bird that sings!

## ASTRONOMICAL APPEARANCES

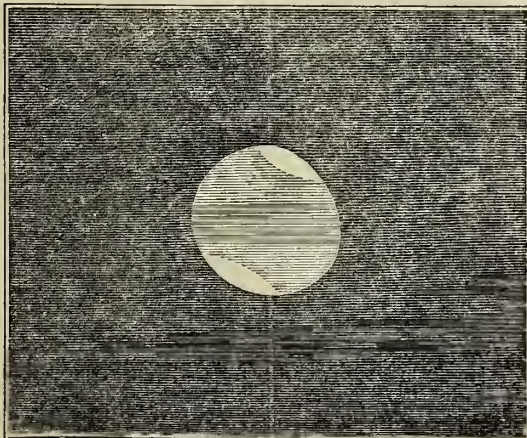
The Zodiacal lights will appear during the first half of this month, about half-past seven o'clock in the evening, or as soon as the twilight is ended. The subjoined drawing exhibits a view of this phenomenon.



It will be observed to soar from the horizon in the form of a delicately luminous cone, pointing towards the Pleiades, or the star Aldebaran; its axis forming an angle of between 60 and 70 degrees with the horizon.

Various opinions have been entertained as to the cause of this sublime phenomenon; but as it uniformly accompanies the sun, it has been generally ascribed to an atmosphere of immense extent surrounding the luminary, and extending beyond the orbit of Mercury.

Mars is to be seen during twilight, not far from the south-eastern horizon; through a good telescope he will appear gibbous, like the Moon two or three days after the full. The accompanying engraving gives the telescopic aspect,

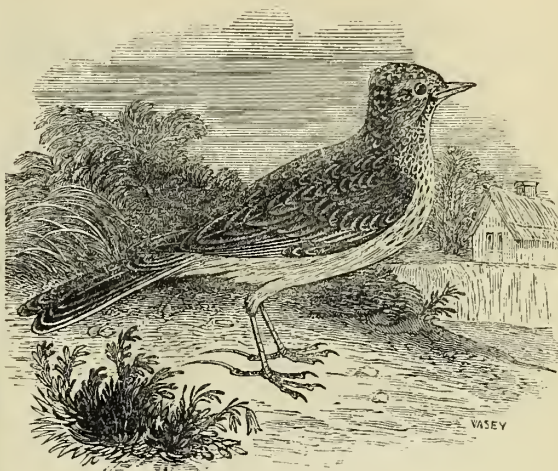


in a correct manner, but in an inverted position. The comparative whiteness of the poles is very remarkable, and should be closely examined. Mars will appear not far from the Moon on the 1st and 31st days. The rest of the planets are unfavourably situated for observation. Jupiter may be perceived near the western horizon after sunset during the first week, but not longer.

\* "Consider the Zephyrus which dares hardly breathe in fear, how she plays and courts the corn. One would think the grass the hair of the earth, and this wind a comb to disentangle it."—Bergerac's Satirical Characters, 1658.

## NOTICES ON NATURAL HISTORY, &amp;c.

## MARCH.



THE SKYLARK.

IN March the skylark sings delightfully; the blackbird gives out its mellow notes. Fieldfares and other birds take their departure to more northerly regions. The lesser pettechaps and the wheatear arrive. Some of the feathered tribes are now busy constructing their nests. In this month the redwing, fieldfare, woodcock, and other migratory birds take their departure on a summer excursion to the northern parts of Europe.

The lark produces two broods in the year; the first in May and the second in July or August. Mr. W. P. Foster, surgeon, of Church-street, Hackney, has for some years kept twelve or fifteen pairs of our smaller singing birds together in an aviary, where they appear in excellent health and plumage, repaying the care and attention bestowed on them by pursuing the round of their various interesting habits—the song, the courtship, the nest-building, and feeding their young within five or six feet of the window, outside which the aviary is constructed, and through which, when open, many of them come into the room to him. The degree of perfection which they are managed, and the total absence of any influence of fear or restraint on their habits may be learned by the fact that in the summer of 1836, a pair of skylarks produced four sets of eggs; in 1837, the same pair produced three sets of eggs, and reared some of their young; and 1838, three females had each of them a nest and eggs. During the period of producing the eggs the female has occasionally been heard to sing with a power and variety of tone equal to the voice of her mate. To supply the quantity of insect food necessary during summer, the maggot, of the flesh-fly and the beetle, so common in most kitchens, are principally resorted to. —Yarrell.

The lark begins its song very early in the spring, and is heard chiefly in the morning; it rises in the air almost perpendicularly and by successive springs, and hovers at a vast height; its descent, on the contrary, is in an oblique direction, unless it is threatened by birds of prey, or attracted by its mate, and on these occasions it drops like a stone. It makes its nest on the ground, between two clods of earth, and lines it with dry grass and roots: the female lays four or five eggs, of a greyish brown colour, marked with darker spots; she generally has two broods in the year, and sits only about fifteen days. As soon as the young have escaped from the shell, the attachment of the parent bird seems to increase; she flutters over their heads, directs all their motions, and is ever ready to screen them from danger.

Trout begin to rise in the rivers, the smelt spawns, and blood worms appear in the water. Moles in quest of food, throw up hillocks. Bees, black-ants, and the meeloe or oil-beetle, are seen in mild sunny days.

The vegetable world now puts forth fresh beauties every day; pile-wort, colts-foot, the daisy, and the primrose are some of the principal wild plants in bloom; while in the gardens are to be seen in flower the daffodil, the sweet violet, crown imperial, polyanthus, &c.

It is not, in general, till the commencement of this month, that, in such a latitude as that of Britain, the effects of the higher temperature are visible on vegetation. Then the perennial roots, the former stems of which have died away, begin to send up the shoots which are intended to bear the leaves and flowers for the present year. These, it is worthy of remark, are always arranged in a uniform and unvarying manner, which is peculiar to each species or genus of plant. In the gardens we may observe the rhubarb and the peony, as examples of this fact, while the ferns or brakes of our heaths and woods present an interesting specimen of this arrangement. The buds of trees, which now also begin to unfold themselves, are likewise folded up in a similar way. The large buds of the horse-chestnut and the sycamore are well fitted for examination in this respect: the scales, which form the outer coating of these, serve to protect them against the severe cold of winter, while the resinous or balsamic juice which is spread over them prevents the penetration of wet, which would rot the buds and destroy the principle of life, or, if accompanied by some warmth, would hurry them into premature expansion, which would equally be followed by the destruction of the central and vital part of the buds. So long as buds remain closely folded up, they are in general secure from the most intense cold; but if, from the too early rise of temperature, which often takes place in our springs, they have begun to expand, they are liable to be destroyed by the return of cold weather. This is equally the case with seeds: hence, annuals, if sown very early, are apt to be nipped by the frosts; and the more valuable seeds for crops are often much injured if too soon committed to the earth. A late spring is therefore followed in general by a more certain as well as abundant crop than an early one.

The industrious husbandman now zealously unites with the elements in fitting the earth for the reception of the seeds, the produce of which is to be the subject of his future cares for many of the following months. The previous and now excessive moisture of the earth is lessened by the increased evaporation, and the steady blowing of cold dry winds.





THE MOON.

New Moon 6th 7 40 A.  
First Qr. 11th 9 23 A.  
Full Moon 22nd 7 12 A.  
Last Qr. 28th 11 19 A.

April is so called from the Latin Aprilis, which is derived from Apricio, to open or set forth, because the earth opens her bosom for the production of vegetation. The Saxons called it *Oster* or *Easter* month, in honour of their goddess *Estre*.

IN SEASON.

FISH.—Brill, carp, eels, cod, crabs, dabbs, dory, eels, flounders, ling, lobsters, mackerel, mullet, mussels, oysters, perch, pike, plaice, prawns, shrimp, salmon, sole, snails, soles, trout, turbot, whiting.

MEAT.—Beef, mutton, veal. Grass lamb is best from April to June.

POULTRY.—Pullets, fowls, chickens, ducks, geese, guinea fowls, turkeys, rabbits.

VEGETABLES.—Asparagus, cherries, cucumbers, lettuce, parsnips, radishes, sea-kale, spinach, (Spring).

FRUIT.—Let the figs be now pruned and trained, and where necessary the pencil and necarine blossoms should be protected.

FLOWERS.—Daffodils, cowslips, primroses, ground ivy, and various other plants are in bloom. The gardens are ornamented with the polyanthus, ranunculus, jonquil, crown imperial, the early tulips, &c. Beech, larch, and elm unfold their leaves. All perennials should be planted now. Weeding is an important duty at this time. The trout quits his bidding place. Carp spawn.

M D		ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.										SUN RISE		SUN SETS		M AG		High water at Low Bridge, noon & ev.		KITCHEN GARDEN.		
1	Tu	Expedition to the North Pole sailed, 1818										5	36	6	32	24	8	36	9	22	Planting the vegetables which have been sown is now the chief business. Make hot beds for cucumbers and melons. Free kidney beans and Elford rhubarb; now also plant out the roots of scarlet kidney beans which have been retained since winter. Plant out artichokes and potatoes; sow asparagus, beets, cabbages, celery, garden and kidney beans, Dutch turnips, lettuces, peas, radishes, small salad.	
2	W	Mirabeau died, 1791—Battle of Copenhagen, 1801										5	34	6	34	25	10	5	10	48		
3	Th	Anniversary of the actual Crucifixion, A.D. 33										5	32	6	36	26	11	29				
4	F	St. Ambrose, Bishop of Milan, died, A.D. 397										5	30	6	37	27	0	1	0	30		
5	S	Goldsmith died, 1774—Game Certificates expire										5	7	6	39	28	0	53	1	16		
6	S	2ND SUNDAY AFTER EASTER—Richard Cœur de Lion killed, 1199—Stow died, 1605										5	25	6	41	29	1	39	2	0		
7	M	Don Pedro, Emperor of Brazil abdicated, 1831										5	23	6	42	1	2	17	2	37		
8	Tu	John, King of France, died in captivity in England, 1364—Sir Robert Peel's Ministry resigned, 1835										5	21	6	44	2	2	55	3	14		
9	W	Battle of Toulouse, 1814—Lord Bacon died, 1626—Lord Lovat beheaded, 1747										5	18	6	46	3	3	31	3	47		
10	Th	Catholic Emancipation Bill passed, 1829—Grotius born, 1583										5	16	6	47	4	4	4	4	21		
11	F	Canning born, 1770—Napoleon abdicated, 1814										5	11	6	49	5	4	37	4	53		
12	S	America discovered, 1492—Dr. Young died										5	12	6	51	6	5	11	5	29		
13	S	3RD SUNDAY AFTER EASTER—Handel died, 1759—Vaccination introduced by Dr. Jenner, 1796										5	10	6	52	7	5	49	6	8		
14	M	Bishop Porteus died, 1809										5	7	6	54	8	6	29	6	53		
15	Tu	Easter Term begins—Mutiny at Spithead, 1797										5	5	6	56	9	7	20	7	53		
16	W	Buffon died, 1788										5	3	6	57	10	8	29	9	12		
17	Th	Abernethy died, 1831										5	1	6	59	11	9	49	10	27		
18	F	Judge Jeffries died, 1689—American Revolution, 1775										4	59	7	1	12	11	1	11	33		
19	S	St. Alphege, Archbishop of Canterbury, murdered by the Danes at Greenwich, A.D. 1012—Lord Byron died, 1824										4	57	7	2	13						
20	S	4TH SUNDAY AFTER EASTER—Cromwell dissolved the Long Parliament, 1653—The Spanish Fleet destroyed by Admiral Blake, 1657										4	51	7	4	14	0	23	0	46		
21	M	Bishop Heber born, 1783										4	55	7	5	15	1	8	1	28		
22	Tu	Duke of Sussex died, 1843—Fielding born, 1707										4	53	7	7	16	1	47	2	6		
23	W	St. George of Cappadocia, Tutelar Patron of England, martyred, under Dioclesian, at Lydda, A.D. 290—Shakespeare born, 1564—Died 1616—Cervantes died, 1616										4	49	7	9	17	2	27	2	48		
24	Th	Daniel Defoe died, 1731—Oliver Cromwell born, 1599										4	47	7	10	18	3	8	3	29		
25	F	St. Mark, Evangelist and Martyr, put to death, A.D. 68										4	45	7	12	19	3	50	4	12		
26	S	Lord Somers died, 1716—David Hume born, 1711										4	43	7	14	20	4	34	4	58		
27	S	ROGATION SUNDAY, from Rogare, to beseech—Sir W. Jones died, 1794										4	41	7	15	21	5	23	5	47		
28	M	Mutiny of the Bounty, 1789										4	39	7	17	22	6	14	6	44		
29	Tu	The last War with France commenced, 1803—The London University founded, 1827										4	37	7	12	23	7	16	7	50		
30	W	Washington inaugurated President of the United States, 1789										4	35	7	20	24	8	28	9	9		



APRIL, 1845.

## SONNET.

"The poetic birds rejoice,  
And for their quiet nests and plentiful food,  
Pay with their grateful voice."—COWLEY.

Thou gentle herald of the flow'ry Spring:  
Mother of violet and pale primrose  
(Whose beauty now on every wild bank grows),  
Hark! how the joyous birds thy welcome sing!  
Some far up in the dewy sky on wing  
Well pois'd—some chattering in the hawthorn hedge  
Some deep-embow'd in lonely glen or brake,  
And others booming from the watery sedge—  
All join'd, a various concert for thy sake  
Most musically and most fondly make!  
Sweet April! whose dear face so oft appears  
The semblance of the brightest thing on earth,  
(Which is a lovely, laughing girl in tears),  
Thy coming wakes the groves to bloom and mirth!

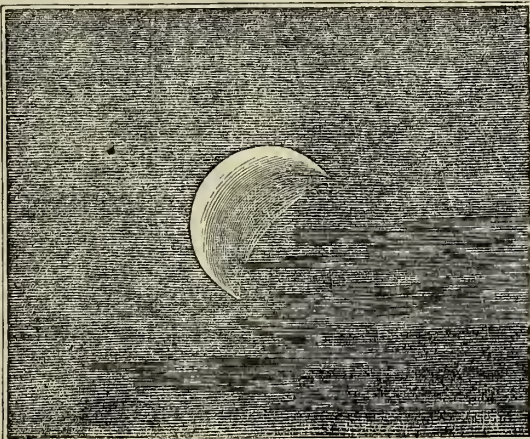
W.

## ASTRONOMICAL APPEARANCES.

THE planet Mercury will be visible to unassisted vision near the western horizon, in the evenings, about the fifteenth day, to the end of the third week of this month, appearing like a gem in the brilliant twilight. On such rare occasions, its light is seen to be white, like that of Venus, but less intense.

The telescopic observer, with a magnifying power of 150, may see this planet about the 24th of the month, soon after sunset, and it will then resemble a small half-moon of serene lustre. Thus observing him evening after evening, his crescent will be found to become more and more narrow, till it be obscured in the dazzling splendour of the sun's rays; and at last the planet will pass between the sun and the earth, appearing like a black spot on the solar disc. (See next month.)

The steady brightness of Mercury is owing to his nearness to the sun, although a space of no less than thirty-seven millions of miles, intervenes between him and the "ruler of the day." To the same cause, also, is to be attributed the fewness of the discoveries which have been made on his surface by means of the telescope. Copernicus is said never to have enjoyed an opportunity of viewing him during his whole life; and modern astronomers have scarcely ever succeeded in getting a well-defined picture of his form. Schroeter, however, an eminent German astronomer, blessed with an eye for observation, and being otherwise favourably circumstanced, appears to have been more successful. He says that he has not only seen spots, but mountains on the surface of Mercury, and that he succeeded in ascertaining



the altitude of two of these mountains. One of them, the highest which came under his notice, measured ten miles and 1,378 yards, or four times the height of Mount Atna.

The light which falls on Mercury, is nearly seven times greater than what falls upon the earth; for the proportion of their distances from the Sun is nearly as three to eight, and the quantity of light diffused from a luminous body is as the square of the distance from that body. The square of 3 is 9, and the square of 8, 64, which, divided by 9, produces a quotient of 7.19th, which nearly expresses the intensity of light on Mercury, compared with that on the earth. Or more accurately thus:—Mercury is 36,890,000 miles from the sun, the square of which is 1,360,134,400,000,000; the earth is distant 95,000,000 miles, the square of which is 9,025,000,000,000,000. Divide this last square by the first, and the quotient is about 6½, which is very nearly the proportion of light on this planet. As the apparent diameter of the sun is likewise in proportion to the square of the distance, the inhabitants of this planet will behold in their sky a luminous orb, giving light by day nearly seven times larger than the sun appears to us; and every object on his surface will be illuminated with a brilliancy seven times greater than the objects around us on a fine summer's day. The splendour which is thus reflected from every object is in all probability associated with colours of a most vivid and gorgeous description.

At the end of this month, at break of day, Saturn will begin to make his advent, near the south-eastern horizon, appearing below the planet Mars.

On the 28th, Mars will appear in the vicinity of the Moon, and Saturn will be in the neighbourhood of the same luminary on the 29th and 30th.

The present month is a very fine one for making telescopic observations, as the air contains a suitable quantity of moisture. The hygro-metrical state of the air is of the greatest consequence for astronomical observations, as it involves circumstances which affect astronomical vision to an extent not ordinarily considered. Dr. Robinson considers the state best suited for observation, to be very near the point of saturation, as the difference between the wet and dry bulb thermometers of more than a degree or two, he has found to preclude all accurate definition, the brighter stars having then a tendency to throw out scintillations of radiating light; and it was only in a moist condition of the air they appeared distinct in themselves, although surrounded by faint coloured rays.

## NOTICES ON NATURAL HISTORY, &amp;c.

APRIL.



THE CUCKOO.

THE following quaint rhymes mark the various stages of his progress through the seasons:—

In April,  
Come he will.  
In May,  
He sings all day.  
In June,  
He alters his tune.  
In July,  
He prepares to fly  
Come August,  
Go he must.

The Cuckoo neither makes a nest nor hatches her own eggs, nor does she nourish her offspring. The eggs are generally deposited in the nests of hedge-sparrows; but occasionally they are found in the nests of the following birds:—hedge accentor, robin, redstart, white-throat, willow-warbler, pied wagtail, meadow-pipit, rock-pipit, skylark, yellow-bunting, chaffinch, greenfinch, linnet, and blackbird.—Yarrell.

The cuckoo visits us early in the spring; its well-known cry is generally heard about the middle of April, and ceases the latter end of June; its stay is short, the old cuckoos being said to quit this country early in July.

The following account of the economy of this singular bird in the disposal of its egg, was communicated by Mr. Edward Jenner, to the Royal Society, and published in the seventy-eighth volume of their Transactions, part II.—He observes that during the time the hedge-sparrow is laying her eggs, which generally takes up four or five days, the cuckoo contrives to deposit her egg among the rest, leaving the future care of it entirely to the hedge-sparrow. This intrusion often occasions some discomposure, for the old hedge-sparrow at intervals, whilst she is sitting, not only throws out some of her own eggs, but sometimes injures them in such a way that they become addle, so that it frequently happens that not more than two or three of the parent bird's eggs are hatched with that of the cuckoo; and, what is very remarkable, it has never been observed that the hedge-sparrow has either thrown out or injured the egg of the cuckoo. When the hedge-sparrow has sat her usual time, and has disengaged the young cuckoo and some of her own offspring from the shell, her own young ones, and any of her eggs that remain unhatched, are soon turned out; the young cuckoo then remains in full possession of the nest, and is the sole object of the future care of its foster parent. The young birds are not previously killed, nor the eggs demolished, but all are left to perish together, either entangled in the bush which contains the nest, or lying on the ground under it.

According to Dr. Jenner's observations, the Cuckoo is invariably a polygamist, and never pairs in this country.

The summer birds of passage now appear, and with them that beautiful little bird, the wryneck. The swallow, cuckoo, willow-wren, blackcap, white throat, &c., commence their vernal songs. The nightingale, in Kent and other southern counties, pours out his wild musical strains all the night long. Various insects, chiefly butterflies, are seen.

If we remark the early flowers of spring, we shall find them all either close to the earth, concealed among the leaves (like the sweet-scented violet), or if raised above it, borne on stems so graceful and slender as to yield to every breath of air, like the *Anemone nemorosa*, or wind-flower. By this arrangement they are preserved from the violence of the winds, and at once adorn our fields and flower-borders, and furnish nourishment to the insects which begin to come abroad from their winter retreats, or are then born. The bee commences its industrious search for honey, to supply which many of our cottage-gardens are furnished, or should be so, with early flowering-plants. Some of the early-flowering wild plants are very useful in this respect, especially the coltsfoot and butter-bur; the former of which, though very troublesome, from its spreading roots, in cultivated lands, should be encouraged to grow along the banks of rivers, the shelving sides of which it would support by its roots, while its flowers yield a large quantity of honey.

In exploring the haunts of insects, which are frequent among the hedge-ways, and in gathering, to examine, the flowers which spring so profusely in our meadows and fields, we secure a useful and pleasing recreation after hours of labour. Wherever a taste for such pursuits exists, the mind is raised above the grovelling ideas of the uncultivated mind, and the baser passions are supplanted by purer and loftier ones.





M D		ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.										SUN RISES.	SUN SETS.	M AGE	High Water at Lon Bridge, morn. & ev.						
1	Th	Ascension, or Holy Thursday, kept in commemora- ration of the ascent of the Messiah, after completing his grand work of Propiti- ation—Parish bounds perambulated—Dryden died, 1700—Addison born, 1672— Wellington born, 1769										4	33	7	22	25	9	47	10	23	
2	F	St. Athanasius, Bishop of Alexandria, author of the Creed named after him—Caudeu born, 1551										4	31	7	33	26	11	1	11	32	
3	S	Columbus discovered Jamaica, 1495—Captured by the English, 1665										4	29	7	25	27			0	1	
4	S	SUNDAY AFT. ASCENSION—Serangapatam taken, 1799										4	28	7	27	28	0	28	0	50	
5	M	The Emperor Napoleon died, 1821										4	26	7	28	29	1	13	1	35	
6	Tu	Battle of Prague, 1757—Eclipse of the Sun vis. 7 A.M.										4	24	7	30	3	1	54	2	13	
7	W	Richard Cumberland, Dramatist, died, 1811										4	22	7	31	1	2	33	2	51	
8	Th	Easter Term ends—Joan of Arc defeats the English near Orleans, 1429										4	21	7	33	2	3	7	3	26	
9	F	Corporation and Test Acts repealed, 1828										4	19	7	35	3	3	41	3	57	
10	S	Theatrical Performances first licensed, 1574—Septen- nial Parliaments declared, 1716—Battle of Lodi, 1796										4	17	7	36	4	4	15	4	32	
11	S	Whitsunday or Pentecost, from the descent of the Holy Spirit upon the Apostles—Earl of Chatham died, 1778—Mr. Perceval shot in the lobby of the House of Commons, by Bellingham, 1812										4	16	7	38	5	4	49	5	8	
12	M	Lord Stafford beheaded, 1641										4	14	7	39	6	5	24	5	44	
13	Tu	Old May Day—Henry IV. of France Assassinated, 1610—Edmund Keane died, 1773										4	13	7	41	7	6	6	6	29	
14	W	Henry Grattan died, 1820—Robert Owen born, 1771										4	11	7	42	8	6	52	7	18	
15	Th	Rapin died, 1725—Cuvier died, 1832										4	10	7	44	9	7	46	8	21	
16	F	Titus Oates convicted of Perjury, 1685										4	8	7	45	10	8	58	9	31	
17	S	Talleyrand died, 1838—Dr. Jenner born, 1748—Died, 1823—Margaret Nicholson died in Bethlem Hospital, 1828										4	7	7	47	11	10	4	10	35	
18	S	TRINITY SUNDAY—Trial by Jury first instituted in England, 970—Napoleon declared Emperor of France, 1804										4	5	7	48	12	11	7	11	36	
19	M	St. Dunstan, Archbishop of Canterbury, died, A.D. 988—Anne Boleyn beheaded, 1536—York Minster fired, 1810										4	4	7	49	13			0	1	
20	Tu	La Fayette died, 1834—Columbus died, 1506										4	3	7	51	14	0	27	0	51	
21	W	The first Railway Act passed, 1801										4	1	7	52	15	1	17	1	38	
22	Th	Trinity Term begins—Alexander Pope born, 1688										4	0	7	54	16	2	2	2	28	
23	F	Francis attempted to shoot the Queen, 1842—Dr. Paley died 1805										3	5	7	55	17	2	49	3	13	
24	S	Queen Victoria born, 1819—Calvin died, 1554										3	5	7	56	18	3	37	4	0	
25	S	1st SUNDAY AFTER TRINITY—Sir H. Davy died, 1829										3	5	7	57	19	4	26	4	50	
26	M	St. Augustine, first Archbishop of Canterbury, died, A.D. 605										3	5	6	7	59	20	5	15	5	42
27	Tu	Dante born, 1265										3	5	5	8	0	21	6	7	6	36
28	W	William Pitt born, 1756										3	5	4	8	1	7	4	7	36	
29	Th	King Charles II. restored, 1660—Princess Sophia Matilda born, 1773										3	5	3	8	2	23	8	6	8	38
30	F	Alexander Pope died, 1744—General Pease, 1814— Joan of Arc burnt by the English at Neufchateau, 1431										3	5	2	8	3	24	9	17	9	48
31	S	Anne Boleyn, mother of Q. Elizabeth, crowned, 1533										3	5	1	8	5	25	10	20	10	52

**THE MOON.**  
New Moon 6th 9 57 M.  
First Qr. 14 2 8 A.  
F. Moon 21 3 58 A.  
Last Qr. 28 6 25 M.

**MAY.**—This month was called *Maia*, by Romulus, in honour of the senators and nobles of his city, who were termed *mayors*. It is also supposed to be derived from *Maia*, the mother of Mercury, to whom the Romans sacrificed on the first day. By the Saxons it was called *Ti-mithi*; the pasturage in this month being so abundant, as to enable them to milk their *cows tri*, or three times in the day.

**THE SEASON.**  
**FISH.**—Brill, carp, eels, crabs, dabs, dories, eels, flounders, gurnets, ling lobsters, mackerel, mullet, perch, pike, pike, salmon, prawns, shrimps, skate, smelts, soles, tench, trout, turbot, whiting.  
**BIRDS.**—Be it, mutton veal. Grass-lamb is best from April to June.

**POULTRY.**—Pullets, fowls, chickens, ducks, geese, turkeys, rabbits.  
**VEGETABLES.**—Asparagus, cabbage, carrots, cauliflowers, cherries, corn-salad, cucumbers, lettuce, peas, potatoes (and through the year), radishes, sea-kale, spinach (Spring), and turnips.

**FRUIT.**—Prune what trees you have neglected. Remove all suckers, except selected ones of raspberries. Pluck off strawberry runners, destroy insects, especially snails and caterpillars. On the first symptoms of the leaves rolling up, unroll them and pick out the grub.

**FLOWERS.**—The trees begin to unfold their leaves, and various flowers decorate our gardens. The primrose, pilewort, wood anemone, and several other wild plants are in bloom.

**MAY** is a spawning month with many fish. Gudgeons are not fairly on the feed in many rivers till June.

**Things to be remembered in May.**—That Ascension Day is on the 1st. Easter Term ends on the 8th, and Trinity Term begins on the 22nd. The Queen's Birthday on the 24th. Holiday at Custom and Excise. In this month the Clerical Leases (held on Saturdays), at Lambeth, usually commence, and the Royal Academy's annual exhibition is opened. Whitsuntide and Martinmas terms are those alone regarded for the leasing of all kind of property, paying rents, and engaging of servants in Scotland.



MAY, 1845.

## SONNET.

MONTH of the nightingale, and rival birds,  
Who out of her sweet honey-breathing mouth  
Would steal or echo all its music-words,  
Thou'rt here again, once more from the soft south,  
Where thou sojourning hast been since the time  
Thou last wert banish'd from our fickle clime!  
Yes! yes—thou com'st again as fresh in charms  
As e'er we do remember thee invest—  
The very rustling of thy pinions warms  
And wakes all Nature from a sullen rest!  
Thou art like Hope unto an aching heart  
Which often bidden by Despair to go—  
Will hut a while (and then but seem) depart—  
Returning soon new solace to bestow!<sup>1\*</sup>

W.

## ASTRONOMICAL APPEARANCES.

## ECLIPSE OF THE SUN.

On the 6th day of this month, an Eclipse of the Sun, visible at Greenwich, will take place. The subjoined cut exhibits the different stages of its progress. It begins at Greenwich at 31 minutes past 8 in the morning, mean solar time; and ends at 47 minutes after 10. In the cut,

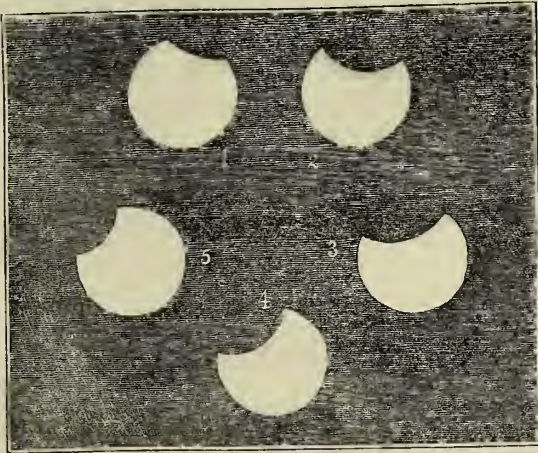
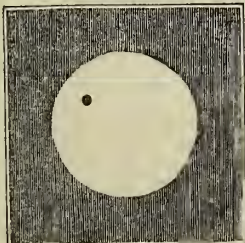


Figure 1 represents the appearance of the Sun at Greenwich  
53 minutes after 8, A.M.,  
being 22 minutes after the beginning of the Eclipse.  
2 .. .. . 15 minutes after 9,  
3 .. .. . 37 minutes after 9,  
being the time of the greatest obscuration.  
4 .. .. . — exactly 10.  
5 .. .. . 23 minutes after 10.

## TRANSIT OF MERCURY.

This eclipse will probably furnish observers with an opportunity, which, we trust, will be eagerly embraced, of determining, in some degree, the character of the spots on the surface of the sun. These spots are of all sizes, from the one twenty-fifth part of the sun's diameter, to one five-hundredth part and under; or, to use popular language, the smallest of them is four or six hundred miles diameter. The number of the spots is very various; sometimes there are only two or three, sometimes above a hundred, and sometimes none at all. They are constantly changing, and when watched from day to day, they are seen to enlarge or contract their forms, and at length to disappear altogether. Sometimes they keep a permanent form for two months together, but ordinarily three weeks is the average time of their duration. Very absurd notions have been promulgated respecting their nature. The most probable conjecture regards them as fissures in a luminous envelope, supposed to enclose the solid and opaque body of the Sun. Observers will therefore be anxious to watch the apparent contact of the moon's edge with any of these "cavities," and to see if the points of contact exhibit anything which would lead to the inference that they are, as supposed, cavities or depressions of surface.

To an astronomer, no celestial phenomenon equals in interest the transit of a planet across the disc of the Sun; it is remarkable as well for its singularity as its rarity; it can occur only with the inferior planets, and with them in the present century, only thirteen can occur with Mercury, and two only with Venus in the same period. On the 8th of this month, in the afternoon, at 19 minutes past 4 o'clock, mean solar time, at Greenwich, Mercury will appear to enter on the Sun's disc in the form of a circular black spot, and may be seen moving across the Sun to the time of his setting. The transit will end 51 minutes past 10 at night. Our drawing represents the transit at the hour of 6 in the evening.

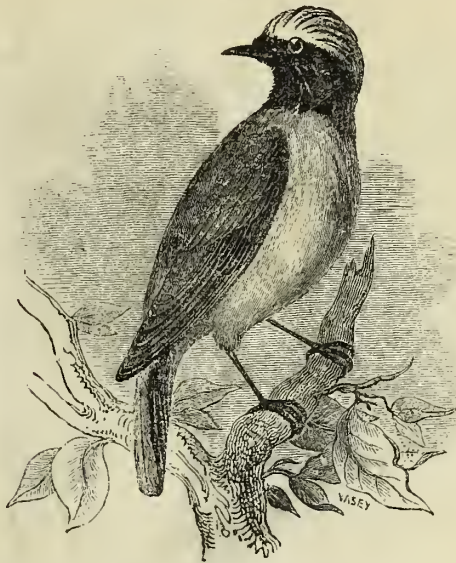


Mars and Saturn are to be seen not far from each other at the break of day, and on the 26th they will be in the neighbourhood of the Moon. Jupiter may be seen at the same time, to the left, and nearer the horizon.

\* The ill-requited May that bears no thought  
Of last year's wrongs in memory, but strews  
From out her charitable lap untir'd,  
Her blessings o'er this thankless, thoughtless hubble!—*Old Play.*

## NOTICES ON NATURAL HISTORY, &amp;c.

MAY.



## THE REDSTART.

The redstart is migratory; it appears about the middle of April, and departs in the latter end of September, or beginning of October; it frequents old walls and ruinous edifices, where it makes its nest, composed chiefly of moss, lined with hair and feathers. It is distinguished by a peculiar quick shake of its tail from side to side, on its alighting on a wall or other place. Though a wild and timorous bird, it is frequently found in the midst of cities, always choosing the most difficult and inaccessible places for its residence; it likewise builds in forests, in holes of trees, or in high and dangerous precipices. The female lays four or five eggs, not much unlike those of the hedge-sparrow, but somewhat longer. These birds feed on flies, spiders, the eggs of ants, small berries, soft fruits, and such like.

The redstart is an imitator of the notes of other birds; and some have been taught, like the hullah, to repeat a tune. Mr. Sweet possessed a redstart that whistled the Copenhagen Waltz.—*Yarrell.*

The redstart sings on the tops of trees, the white-throat warbles in the hedge-rows; the skylark salutes the rising sun with his sweet airs. Various other birds are now in full song. Various tribes of insects now appear, especially of the lepidopterous kind. Some of the small species of dragon flies appear on the banks of ditches.

At this particular time, the woods and rural lanes teem with life and enjoyment. The assiduity displayed by the different members of the feathered tribe in building their nests, or employing them for incubation, is unceasing. Each pair constructs a nest adapted to its particular shape and habits, and places it in a situation most convenient, as well as least likely to be discovered; the external materials are also generally selected with a view to this end, being mostly of a colour nearly resembling the substances on which they rest. One exception to this rule of each preparing its own nest is found in the custom of our annual visitant, the cuckoo, which, instead of building one for itself, makes use of the nest of some other species, but not of any bird indiscriminately, since it prefers the nest of the wag-tail, the hedge-sparrow, the tit-lark, the white-throat, and the red-breast, all soft-billed, insectivorous birds.

We now receive many other migratory birds, as well as the cuckoo, the most welcome and favorite of which is the nightingale, who comes amongst us when the woods and groves hasten to perfect their leafing. Nor do leaves alone come forth; but the lilac waves its top of flowers, the horse-chestnut and the sycamore deck their green foliage with their ornamental spikes, and the laburnum hangs its festoons of bright and golden blossoms. A canopy is thus spread out for them, where, sheltered from sight, the female faithfully broods over her eggs, while the male generally sits by warbling his early song. To walk forth into the fields, to listen to such melodies, is a luxury which all may enjoy, either at morn or eve. In either case they will be regaled with the delicious freshness of the atmosphere, now laden with the odour of plants; and the moisture which still exists in the air, especially during the cool of dawn or twilight, renders it well fitted to convey the fragrance of flowers. Every breeze is now scented with the perfume of the white thorn, familiarly called MAY, a term which our neighbours, the Germans, apply to the lily of the valley; and the sweet-scented meadow-grass, gives out its odour, both in flowering and still more when cut down and drying for hay.

As frosts and cold easterly winds are common in the beginning of this month, those who have a flower garden should not be precipitate in plucking out their tender annuals or dahlias, which often experience a fatal blight, or receive a severe check, if exposed in the open ground before the middle of the month.

## SONG—1600.

Spring, the sweet spring  
Is the year's pleasant king;  
Then blooms each thing,  
Then maids dance in a ring;  
Cold doth not sting;  
The pretty birds do sing,  
Cuckoo—juggle, juggle,  
Pu we, to witta woo.

The palm and May  
Make country houses gay,  
Lambs frisk and play,  
The shepherds pipe all day;

And we hear aye  
Birds tune this merry lay,  
Cuckoo—juggle, juggle,  
Pu we, to witta woo.

The fields breathe sweet,  
The daisies kiss our feet,  
Young lovers meet,  
Old wives a sunning sit;

In every street  
There tunes our ears do greet,  
Cuckoo—juggle, juggle,  
Pu we, to witta woo.





**THE MOON.**  
N. Moon 5th 1 7 m.  
First Qr. 13th 3 43 m.  
Full Moon 19th 1 18 a.  
Last Qr. 26th 3 27 a.

JUNE takes its name from the goddess Juno. The Saxons first gave to this month the name of *Weyd-monath*, and afterwards *Fere-monath* dry month. The former title was bestowed because their hearts did then weep in the meadows, that is to say go to feed there; a meadow in the Teutonic is from thence called a *weid*, and of weid we still retain our word *weede*, to go through weedy places, as such meadows used formerly to be.

**IN SEASON.**  
FISH.—Carp, cod, rab, dab, dace, dory, eel, flounders, gurnets, haddock, ling, lobsters, mackerel, mullet, perch, pike, plaice, prawns, salmon, skate, soles, tench, trout, turbot, whiting.  
MEAT, as in May, with the addition of venison.

**POULTRY, as in May.**  
VEGETABLES.—Asparagus, beans, (French and kidney), beets, (Windsor), cabbages, carrots, cauliflowers, chervil, coriander, cucumbers, endive, (and through the year), lettuces, peas, radishes, spinach, (Spring) turnips.

**Foa DRYING.**—Orange-thyme, mint, tarragon, burnet.  
**FOR PICKLING.**—Garlic.

**SAVING.**—Prune and train the summer shoots of wall and trellis trees. Thin shoots of fruit shrubs. Protect fruit from birds. Keep the watering pot in use.

**BIRDS.**—The feathered tribe are now busy constructing their nests, and rearing their young. Several birds yet sing delightfully in the fields and woods, where insects now abound.

M	D	W	D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN Rises.	SUN Sets.	M	High water at Lon. Bridge, morn. & ev.	Flowers. — Mar.
1	S			2ND SUNDAY AFTER TRINITY—Brilliant action between the Chesapeake and Shannon, 1813	3 50 8	6 26	11 23	11 55	gold and peonies and roses, including the guelder rose, with its whiteness now display their beauties. The star of Bethlehem shines in all its splendour, and pinks and sweet William add their pretty colours; the pansy, the carnation and red valerian ornament our gardens. The blossoms of the sweet briar are now open, and the white holly and iris also ornament the garden. The forget-me-not ( <i>Myosotis palustris</i> ) is in flower on the sides of rivers.
2	M			The Lord George Gordon Riots commenced, 1780	3 49 8	7 27		0 22	
3	Tu			William Harvey died, 1657	3 49 8	8 28	0 46	1 10	
4	W			The Kingdom of the Netherlands divided, 1831—	3 48 8	9 29	1 31	1 53	
5	Th			King of Hanover born, 1771	3 48 8	10	2 12	2 30	
6	F			Corpus Christi—Census taken, 1841—Jeremy Bentham died, 1832	3 47 8	10 1	2 49	3 5	
7	S			The Reform Bill passed, 1832—Von Weber died, 1826 Royal Exchange first opened, 1566	3 46 8	11 2	3 25	3 40	
8	S			3RD SUN. AFT. TRINITY—Thomas Paine died, 1809	3 46 8	12 3	3 58	4 14	
9	M			St. Anthony—Lilly the Astronomer died, 1681	3 46 8	13 4	4 30	4 48	
10	Tu			A potboy named Oxford fired at the Queen, 1840— Astley's Amphitheatre destroyed by fire, 1841	3 45 8	14 5	5 6	5 25	
11	W			St. Barnabas—Roger Bacon died, 1294	3 45 8	14 6	5 43	6 3	
12	Th			Wat Tyler killed in Smithfield, 1381—Collins died, 1759	3 45 8	15 7	6 24	6 47	
13	F			Battles: Nazeby, 1645—Marengo, 1800—Friedland, 1807	3 44 8	15 D	7 11	7 38	
14	S			Battle of Saragossa, 1809	3 44 8	16 9	8 6	8 40	
15	S			4TH SUNDAY AFTER TRINITY—St. Vitus—Luther excommunicated, 1520—Magna Charta signed, 1215	3 44 8	16 10	9 14	9 45	
16	M			Duke of Marlborough died, 1722—Joseph Buonaparte proclaimed King of Spain, 1808	3 44 8	17 11	10 16	10 48	
17	Tu			St. Alban's, martyred, 303—John Wesley born, 1703	3 44 8	17 12	11 21	11 51	
18	W			Battle of Waterloo, 1815—William Cobbett died, 1835	3 44 8	18 13		0 22	
19	Th			Inigo Jones died, 1652—Sir Joseph Banks d. 1820	3 44 8	18 14	0 49	1 17	
20	F			Death of William IV., and Accession of Queen Victoria, 1837	3 44 8	18 O	1 42	2 10	
21	S			Longest day—Income Tax imposed, 1842	3 45 8	18 16	2 36	3 2	
22	S			5TH SUNDAY AFTER TRINITY—Machiavelli died, 1527—Trial of Queen Caroline commenced, 1820—Battle of Vittoria, 1812	3 45 8	19 17	3 28	3 52	
23	M			Leibnitz born, 1646—Aken-side died, 1770	3 45 8	19 18	4 15	4 40	
24	Tu			Midsummer Day—Nativity of St. John Baptist—John Hampden died, 1643	3 45 8	19 19	5 5	5 29	
25	W			Battle of Bannockburn. 1324—Quarter Sessions commence this week	3 46 8	19 20	5 54	6 18	
26	Th			London Docks commenced, 1802—Geo. IV. died, 1830	3 46 8	19 21	6 44	7 8	
27	F			Dr. Dodd executed for forgery, 1777—Allan Cunningham died, 1840	3 47 8	19 C	7 35	8 3	
28	S			Queen Victoria crowned at Westminster, 1838	3 47 8	18 23	8 32	9 8	
29	S			6TH SUNDAY AFTER TRINITY—St. Peter martyred at Rome, A.D. 77	3 48 8	18 24	9 38	10 9	
30	M			Earl of Argyll beheaded, 1685—Great Fire at Woolwich Arsenal, 1805	3 48 8	18 25	10 43	11 18	

Flowers. — Mar. gold and peonies and roses, including the guelder rose, with its whiteness now display their beauties. The star of Bethlehem shines in all its splendour, and pinks and sweet William add their pretty colours; the pansy, the carnation and red valerian ornament our gardens. The blossoms of the sweet briar are now open, and the white holly and iris also ornament the garden. The forget-me-not (*Myosotis palustris*) is in flower on the sides of rivers.

**KITCHEN GARDEN.**—Now cape broccoli, kidney beans, peas, lettuces, radishes, campinns, spinach, small salad &c. The best peas for sowing now are Knight's marrow peas; they will bear till October. Hoe the beds of table vegetables, and pick out the most curled plants of curled parsley, cress, and chervil for seed. Asparagus should not be cut after the 24th.

**THE FARM.**—Your fallows now demand your earnest attention; continue to plough and cleanse them. Where Swedish turnips fall fill up the rows with cabbage plants. Plant out cabbages. Weed wheat, peas, and beans. Cut clover, meadowgrass, and saintfoin for hay. If your hay is damaged by heavy rains, add salt to it as you stack it—14 to 25 lbs of salt to a load of hay. Wash and shear sheep. Hoe carrots and potatoes. Weed flax. Tie your hop vines, and prune them when needful. Clean out ponds. Husband the mud.

*Things to be remembered in June.*—On the 20th, overseers to affix notices to church doors, requiring voters to send in their claims.



JUNE, 1845.

## SONNET.

I.

FAIR Season! sacred to the blushing flow'r,  
Whose leaves were stain'd by Venus' wounded feet  
When her Adonis she would save—most meet  
For ev'ry bird too, in both grove and bow'r,  
To send its minstrelsy forth, loud and sweet,—  
Thee, with as fond but meaner music's pow'r,  
We welcome, and thy gen'rous advent greet!  
Thou bring'st with Thee an Alchemy most strange  
Compounded of the sweetest things on earth:—  
'Trough the wide round of vast creation's range,  
Or circling dance of its eternal change,  
No Month like Thee, produces at a birth  
Such fruit and flowers—melody and joy,—  
Which, it would seem no winter might destroy!

II.

And yet—amidst thy garland of delights,  
'Tis sad to find some lurking poison there—  
Thy nightingales may sweetly sing o' nights  
By day thy humblest flow'rs may seem most fair;  
But in some secret place we may e-py  
The deadly nightshade\* crawling o'er thy bloom!  
As an unhappy melancholy sigh,  
Will ev'n amidst the gayest revelry,  
Uplift the heart with sad foreboding gloom,  
And tell it that its time is near to die!  
Thus, o'er the brightest sun will come eclipse—  
Sorrow's a weed will nestle amid flow'rs—  
And while we fancy sweets are on our lips,  
'Tis then, perhaps, we taste Life's sharpest sours!

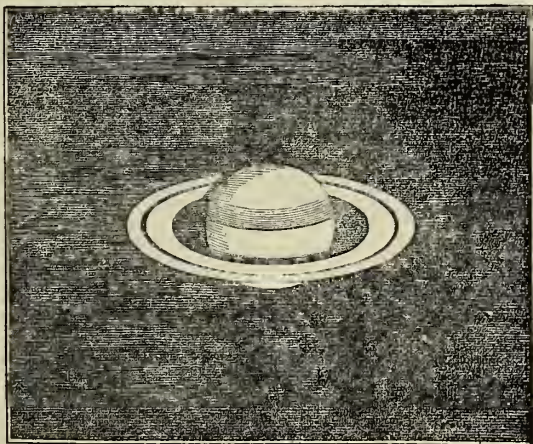
III.

Besides, fair June! thou'rt hardly present here  
Before thou sing'st the cadence of the year!  
Thou'rt like a verdurous mountain top, which won,  
By many a joyous step, on further side  
Presents a prospect, and a dreary one  
Contrasted with the path we upward plied!  
Full soon will day beyond thy crowning height  
Begin to fade before the length'ning night!  
And though thou promisest the golden field,  
And all the fruit that Autumn ripe can yield,—  
Still 'tis a hast'ning to the gloomy time  
When the brown year will wear December's snow!  
Sad emblem that when Man doth reach his prime,  
Down—down the Hill of Life his steps must go!

\* The *Bella Donna* flowers in June.

## ASTRONOMICAL APPEARANCES.

At the commencement of this month Saturn will rise soon after midnight, and as the Sun will ascend above the horizon before four o'clock, the best time for taking a telescopic view of him, will be about two o'clock: at the end of the month he will rise about half-past ten, and may be observed between midnight and one o'clock in the morning: his appearance, at all times splendid, will then be most impressive, as his rings will be admirably disposed for perfect exhibition. Attention should be given by observers to the



dusky spots which appear on his surface, by whose motion the diurnal rotation of the planet has been determined. The belts—as they are called—the shadowy bands which may sometimes be seen embracing the diameter of the disk, should also be carefully watched, as they are indicative of a structure wholly different from anything with which we are acquainted.

The cut exhibits the position of the rings as they will appear during the month of June; but, at other times they represent a variety of aspects, according to the position of Saturn in the heavens. Sometimes the planet will seem to be completely divested of his rings. Sometimes they appear only like a short luminous line, and, at other times, like a large brilliant oval, surrounding and embracing the body of the planet. These changes are owing to the circumstance that the rings never stand at right angles to our line of vision.

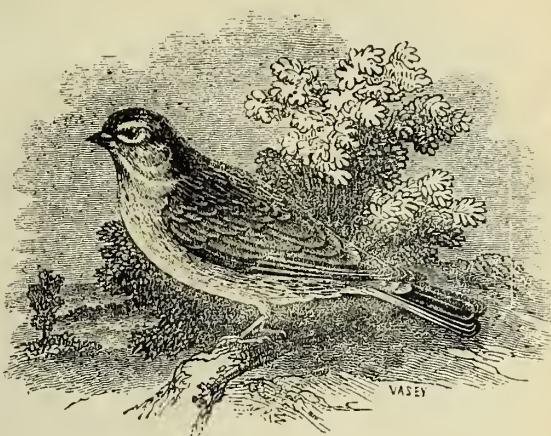
The planet Mars, will, during this month, be gradually approaching the Earth, and, of course, will appear to increase in magnitude: he will appear in the vicinity of Saturn, throughout the month, but may be easily known from Saturn, to unassisted vision, by his ruddy appearance.

On the 2nd, at 26 minutes past one in the morning, these two planets are in conjunction in right ascension, when Mars will be 2° 4' to the south of Saturn.

The Moon will be seen in the neighbourhood of Saturn and Mars, on the 23rd and 21st, and on the 29th, near Jupiter.

## NOTICES ON NATURAL HISTORY, &amp;c.

JUNE.



THE LINNET.

WITHIN the bush, her covert nest  
A little linnet fondly pressed,  
The dew sat chillily on her breast  
Sae early in the morning.  
She soon shall see her tender brood,  
The pride, the pleasure of the wood,  
Among the fresh green leaves bedewed,  
Awake the early morning.

BURNS.

LINNETS are birds of gentle dispositions, easily tamed, and capable of very considerable attachment to those who feed and attend them; if taken young, the males can be taught to sing; but the females have no song, and the old males do not utter their note. The young, however, may be made to imitate the songs of several other birds; and there have been instances in which they have been brought to articulate a few words. In disposition, this bird is gentle and docile, and is much admired for its song, which is lively and sweetly varied, and preferable to that of most other small birds. Upwards of five guineas have been given by a bird-catcher, for a call-bird linnet.

The linnet builds its nest concealed in furze bushes; the outside is made up of dry grass, roots, and moss; it is lined with hair and wool. The female lays four or five eggs, they are white, tinged with blue, and irregularly spotted with brown at the larger end: she breeds generally twice in the year.

The linnet is partially a migrant within the country, though the sexes do not separate in the same decided manner as the chaffinches. During the inclement season, the birds resort to the lower grounds, especially to those near the sea-shore. They appear in considerable flocks, the young birds appear earliest, then the females, and lastly, the mature males, which may be said to be the order of movement with all autumnal birds, how limited soever may be the distance to which they migrate.

In the flocking time, against which the male has lost the red on the breast, linnets fly very close and crowded, but with a smooth and straightforward flight.

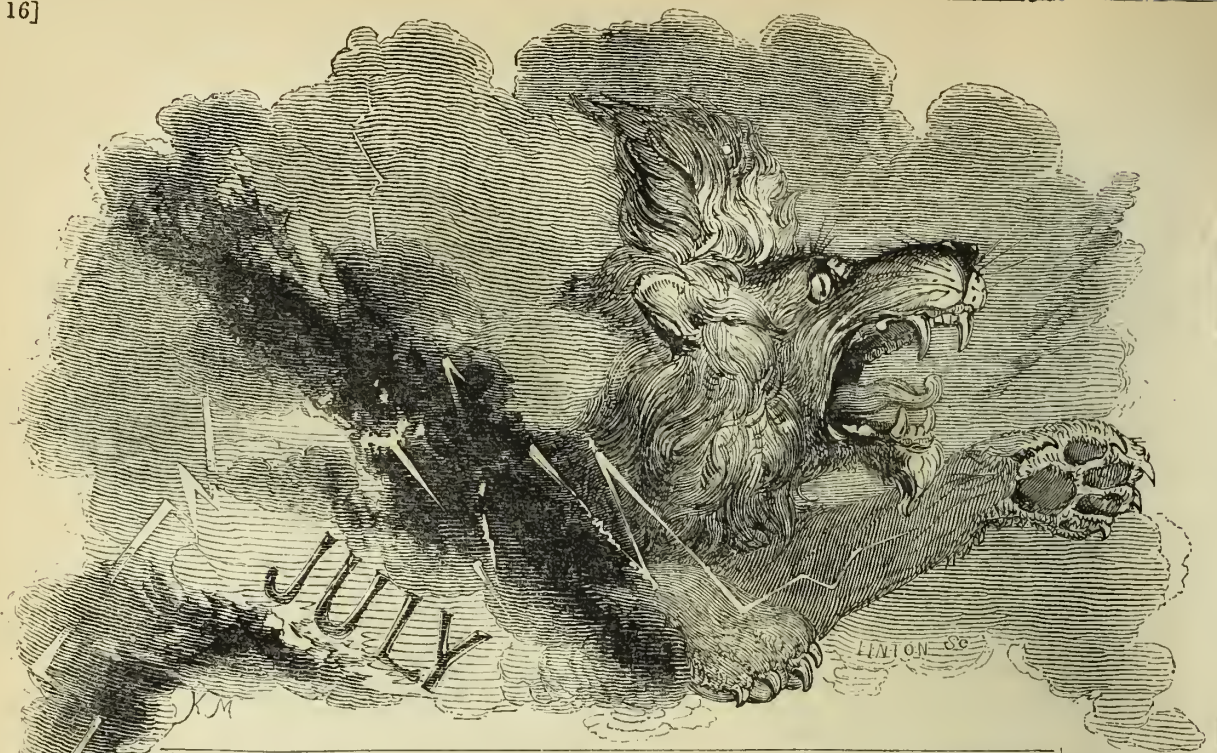
JUNE, which has been called "the leafy month of June," is well entitled to the appellation, since each tree is now in full and perfect foliage. At this season we have an opportunity of observing the various shades of green which so diversify the exterior of the woods. One uniform shade, even of green, would be as fatiguing to the eye, if it rested long upon it, as the more flaming colours are when gazed upon for a short time; but we are gratified by an infinite variety of hues, from the deep and sombre green of the yew and Scotch fir to the light and cheerful colour of the sycamore and the ash. The foliage of trees has a great share in furnishing characteristic features to landscape scenery.

The occupations of the agriculturist keep pace with the changes of external nature. As the weather is not yet oppressively warm, the business of hay-making is carried on with less fatigue than the grain harvest; and the serenity of the evenings invites the toil-worn citizen to breathe the perfumed air of mead and dale. Some persons, however, are so powerfully affected by the odour of plaots, and especially of the hay, as to be driven from the country, and compelled to take refuge from its influence on the sea-coast. The smell of new hay is principally derived from the sweet-scented vernal meadow-grass (*anthoxanthum odoratum*), the perfume of which appears to be owing to the presence of benzoic acid.

In the pastoral districts this month is usually selected for the business of sheep-shearing, which is no less a rural festival than hay making. With our ancestors it was a time of great mirth and jollity; and though it has become more of a calculating operation, in which the gains to be derived from it occupy the thoughts to a greater degree than formerly, we trust that a reasonable cheerfulness is still spread over the mind at this interesting time, and that there mingles with this, and all our other works, a due sense of our dependence for ultimate success and reward on Him who "tempers the wind to the shorn lamb."

Towards the end of the month the air becomes dry, and often sultry, except when cooled and moistened by rain, which often falls in considerable quantity. Thunder-showers are also frequent, with their accompanying phenomena. These are preceded, in general, by a calm and stillness, which shows itself alike in the animal and vegetable kingdoms, no members of which exhibit the least motion till the commencement of the storm, when the birds fly to a covert, and the cattle flee for shelter, and "the leaves all tremble with instinctive dread." This, however, like every other occurrence in nature, is productive of good, and is followed by a purity and freshness of the air which is owing to plants exhaling more oxygen after the excitation of a storm than before; animal life also revives, and all nature seems to rejoice in the recovery of her wonted tranquillity.





**THE MOON.**  
New Moon 4th 4 29 A.  
First Qr. 12 2 22 A.  
Full Moon 19 6 2 M.  
Last Qr. 26 3 29 M.

**JULY**, the fifth month of the Roman Calendar, received in consequence the name of *Quintilis* to denote its numerical position. It was sacred to Jupiter, and had in the *Althaa* Calendar thirty-six days. Romulus took from it five days. Numa reduced it to thirty, but Julius Caesar enlarged it to thirty-one, the present number. In honour of this conqueror, Mark Anthony changed its name from *Quintilis* to *Julius*, hence our July. Our Saxon forefathers, who commonly named their months from certain natural appearances or events, denominated this month *Heu monath*, or *Hey monath*, since this was their hay harvest.

**IN SEASON.**  
**FISH.**—Barbel, carp, crabs, dace, dabbs, dory, eels, flounders, ling, gurnets, haddock, loachers, mackerel, mullet, pike, perch, plaice, prawns, salmon, skate, soles, tench, thorn-trout, turbot, whiting.  
**MEAT.**—Beef, mutton, veal. Grass-lamb is best from April to June.

**POULTRY.**—Pullets, fowls, chickens, ducklings, pigeons, rabbits.

M D	W D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN RISES.	SUN SETS.	M AGE	High water at Lon. Bridge, morn. & ev.
1	Tu	Battles: The Boyne, 1690—The Nile, 1798—Admiral Duncan b. 1731	3 49 8	17 26	11 51	—
2	W	Visitation B. V. M.—Hungerford market opened, 1833	3 50 8	17 27	0 20	0 45
3	Th	Jean Jacques Rousseau died, 1778—Dog days begin	3 51 8	17 28	1 8	1 30
4	F	Transfiguration of St. Martin—New Moon	3 51 8	16 0	1 52	2 12
5	S	Sovereigns first issued as currency, 1817—President Jefferson died, 1823	3 52 8	16 30	2 29	2 49
6	S	7TH SUNDAY AFTER TRINITY—Old Midsummer-day—Adam Smith died, 1790—Samuel Whitbread died, 1813	3 53 8	15 1	3 7	3 24
7	M	Thomas à Becket assassinated at Canterbury, 1170	3 54 8	15 2	3 39	3 57
8	Tu	Edmund Burke died, 1797—Sir T. More beheaded, 1535	3 55 8	14 3	4 12	4 29
9	W	The Bourbon dynasty restored to France, 1815	3 56 8	13 4	4 45	5 2
10	Th	London Bridge destroyed by fire, 1212, 3000 persons burnt	3 57 8	12 5	5 21	5 38
11	F	Jack Cade slain in Kent, 1450—Prince of Orange assassinated, 1684—Macklin died, 1797—Alibaud guillotined for shooting at Louis Philippe, 1836	3 58 8	12 6	5 59	6 19
12	S	Confederation of the Rhine, 1806—Erasmus died, 1536	3 59 8	11 7	6 41	7 4
13	S	8TH SUNDAY AFTER TRINITY—Duke of Orleans killed by a fall from his carriage, 1842	4 0 8	10 8	7 28	7 55
14	M	The Bastille destroyed, 1789	4 1 8	9 9	8 25	9 1
15	Tu	St. Swithun, Bishop of Winchester, patron of rain—The French Revolution commenced, 1789	4 3 8	8 10	9 37	10 12
16	W	Sir Joshua Reynolds b. 1723—The Hegira, or flight of Mahomet, A.D. 622—Massaniello assassinated, 1647	4 4 8	7 11	10 49	11 27
17	Th	Dr. Watts born, 1674	4 5 8	6 12	—	—
18	F	Petrarch died, 1374—Hampden killed, 1643	4 6 8	5 13	0 34	1 3
19	S	George IV. crowned, 1821—Princess Augusta of Cam. b. 1822—Edward III. defeated the Scots at Berwick	4 8 8	4 1	1 33	1 58
20	S	9TH SUNDAY AFTER TRINITY—St. Margaret, virgin and martyr—Playfair died, 1819	4 9 8	2 15	2 25	2 51
21	M	Robert Burns died, 1796—Lord W. Russell beheaded, 1683—Union of England and Scotland, 1706	4 10 8	1 16	3 15	3 39
22	Tu	Battle of Salomanea, 1812—General Fast in Scotland on account of the Church, 1841	4 12 8	0 17	4 1	4 22
23	W	Gibraltar taken by Sir Geo. Rooke, 1704—"The English Mercury," first English newspaper published, 1583	4 13 7	59 18	4 46	5 7
24	Th	Insurance offices first established in London, 1700	4 14 7	57 19	5 29	5 51
25	F	St. James, proto-martyr	4 16 7	56 20	6 12	6 35
26	S	St. Anne, mother of B. V. M.	4 17 7	54 21	6 58	7 22
27	S	10TH SUNDAY AFTER TRINITY—Almanac duty repealed, 1834	4 18 7	53 22	7 46	8 14
28	M	Robespierre guillotined, 1793	4 20 7	51 23	8 50	9 24
29	Tu	French Revolution of three days commenced, 1830—Wilherforce died, 1833—Spanish Armada destroyed, 1588	4 21 7	50 24	10 0	10 36
30	W	Charles X. dethroned, 1830—Wm. Penn died, 1718	4 23 7	48 25	11 16	11 50
31	Th	Ignatius Lyola, founder of the Order of Jesuits, died, 1556—Gray died, 177	4 24 7	47 26	—	0 23

**VEGETABLES.**—Artichokes, asparagus, beans (French, kidney, and scarlet), beans (Windoor), carrots, cauliflowers, cucumbers, lettuce, peas, salsify, spinach (Spring), turnips.

**FOR DRYING.**—Knotted marjoram, winter and summer savory.

**FOR PICKLING.**—Beans (French), cauliflowers (red), cauliflowers, cucumbers, gherkins, nasturtiums, onions, radish pods.

**THE FARM.**—Horse hoe potatoes. Hoe carrots. Lucern may be cut and hoed this month; do not mow it too close to the ground, close cutting injures it. Fold your sheep on the lands intended to be first sown. Wean lambs.

**BIRDS.**—Most of the feathered tribe are now mute; the blackcap, the chaff, and the yellow-hammer are occasionally heard. Moths and butterflies abound, and the glow-worm shines at twilight hours. The death-watch heats, and the grasshopper sings.

**Things to be remembered in July.**—5. Annual licence to be taken out by wine merchants and appraisers who are not auctioneers. — 20. As assessed taxes and poor rates due on the 6th April, must be paid on or before this day, by all electors of cities or boroughs, or they will be disqualified for voting. Last day for sending in claims for voting in counties. — 31. Overseers to make out lists of county and borough electors.



JULY, 1845.

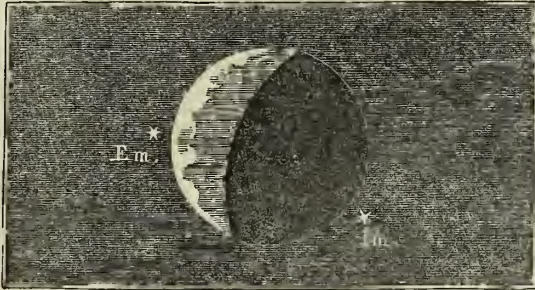
## SONNET.

Now is the time to see the glorious Sun  
At early dawn his chymistry begin—  
To see him hang, on threads the dew has spun,  
Pearls, sapphires, rubies—and far up, within  
The greeny clouds, a golden tissue weave,  
Whose splendour dowsy-heads can ne'er believe!  
A poet's fancy only can conceive  
The gorgeous beauty of a summer's morn  
At that sweet time when young Aurora's born  
To shed her smile on fields and groves and bow'rs,  
And tell the rustling minstrels on each thorn  
To mix their music with the breath of flow'rs!  
Oh! there's no time can give such pure delight,  
As when the Day first flees th' embrace of Night.

W.

## ASTRONOMICAL APPEARANCES.

THE fine clear nights of this month, present eligible opportunities for observing that interesting phenomenon—the occultation or passage of one heavenly body over another. With the assistance of the subjoined engraving we shall endeavour to make a striking example of such an occurrence in the punctual heavens, intelligible to the least practised observers. The cut represents the telescopic appearance of the moon and the small star in the constellation Leo, called  $\gamma$ , as they will be seen on the evening of the 9th of July, at 36 min. past 8 o'clock; the moon, in its course, will appear to strike the star, and cause its instant disappearance. The contact is called, in astronomical language, the *Immersion* of the star. On this occasion, the apparent extinction of the star, will, as a popular spectacle, be made more striking, from the circumstance of its being the dark side of the moon which will first cover it. At 32 minutes past 9, the star will reappear at the bright edge of the moon, constituting what is called its *Emersion*. A powerful telescope will be required for the observation, as the star is small, and a strong twilight will prevail through the whole time of the occultation.



In the wonderful regularity, the exact time-keeping which attends these and all the phenomena of the heavens, "we may see," says Dr. Dicks, "what a beautiful and divine fabric the stellar universe exhibits. Like all the arrangements of Infinite Wisdom, its foundations, as far as they have been discovered, are plain and simple, while its superstructure is complete and diversified. The causes which produce the effects, are, apparently, few, but the phenomena are innumerable. In the solar system, while the ends to be accomplished are numerous and various, the means are the fewest that could possibly bring the design into effect. What a striking contrast is thus presented between the works of Omnipotence, as they really exist, and the bungling schemes of the ancient astronomers! who, with all their cycles, epicycles, concentric and eccentric circles, their deferents, and solid crystalline spheres, could never account for the motions of the planetary orbs, or predict the periods of the most ordinary celestial phenomena. The plans of the Almighty, both in the material world and in his moral government, are quite unlike the circumscribed and complex schemes of man. Like himself they are magnificent, stupendous, and yet accomplished by means apparently weak and simple. All his works are demonstrations, not only of his existence, but of his inscrutable wisdom and superintending providence. As the accomplishments of every workman are known from the work which he executes, so the operations of the Deity evince his supreme agency, and his boundless perfections. What being, less than infinite, could have arranged the sidereal system, and launched from his hand huge masses of the planetary worlds? What mathematician could so nicely calculate their distances and arrange their motions? Or, what mechanic so accurately contrive their figures, adjust their movements, or balance their projectile form with the power of gravitation? None but he, whose power is supreme and irresistible, whose agency is universal, and whose wisdom is unsearchable."

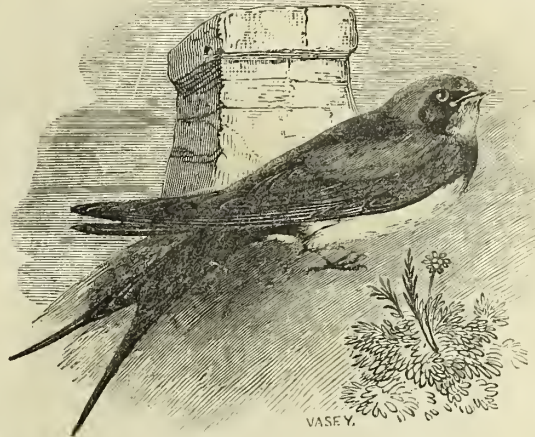
Mars will appear this month much larger than he did in June, owing to his approaching the Earth: he is not far from Saturn during the whole revolution of this month; the time will therefore be a good one for examining the singular patches of colour, which, with a good telescope, are observable on his surface. These markings, or "spots," are not always well defined, and may frequently change their form. Some of them have been seen to stretch across the face of the planets like one of the broad belts of Jupiter, in course of dissolution; others in clusters of radiating spots; and others again in sinuous masses, resembling delineations of estuaries and mouths of rivers, as they appear in maps.

It has long been observed that the stars shine with different colours; for the diversity is apparent to the naked eye. Among those of the first magnitude, for instance, Sirius, Vega, Altair, Spica, are white, Aldebaran, Arcturus, Betelgeux, red, Capella and Procyon, yellow. In minor stars the difference is less perceptible to the eye, but the telescope exhibits it with equal distinctness. It is likewise far more striking in countries where the atmosphere is less humid and hazy than ours; in Syria, for instance, one star shines like an emerald, another as a ruby, and the whole heavens sparkle as with various gems. There is no doubt that, in the course of long periods of time, stars change their colours. Sirius was celebrated by the ancients as a red star, now it is brilliantly white; and other changes have occurred of a like nature. It was more than vain to speculate regarding the causes of these variations. They are indicative of a set of laws whose nature is yet wholly unknown.

Other important discoveries have recently been added upon the properties and power of the light emitted by these varied colour stars; and the concentrated rays from some have been found of sufficient strength to trace a delicate outline upon some of the most sensitive of the photogenic papers prepared by Sir J. Herschel and others.

## NOTICES ON NATURAL HISTORY, &amp;c.

JULY.



## THE SWALLOW.

Of all the various families of birds, which resort to this island for food and shelter, there is none which has occasioned so many conjectures respecting its appearance and departure as the swallow tribe. The swallow lives habitually in the air, and performs its various functions in that element; and whether it pursues its fluttering prey, or follows the devious windings of the insects on which it feeds, or endeavours to escape the birds of prey by the quickness of its motion, it describes lines so mutable, so varied, so interwoven, and so confused, that they hardly can be pictured by words. The swallow tribe is of all others the most inoffensive, harmless, entertaining, and social; all, except one species, attach themselves to our houses, amuse us with their migrations, songs, and marvellous agility, and clear the air of gnats and other troublesome insects, which would otherwise much annoy and incommod us.

Swallows are found in every country of the known world, but seldom remain the whole year in the same climate; the times of their appearance and departure in this country are well known: they are the constant harbingers of Spring. And on their arrival all nature assumes a more cheerful aspect. The bill of this genus is short, very broad at the base, and a little bent; the head is flat, and the neck scarcely visible; the tongue is short, broad, and cloven; tail mostly forked; wings long; legs short.

THE year having attained its height, as well as the day its greatest length, in the preceding month, all things seem now hastening to maturity, in order to complete the object of their creation ere the winter arrive. But even now we miss many of the enlivening and cheering appearances of the earlier months: the incubation of birds having been completed, many of the merry minstrels of the grove cease to warble their sweet strains, and a brown or russet hue clothes the fields of waving grain, instead of the fresh and tender green of May. There exist, however, on every hand, appearances and changes, sufficient both to delight the eye and gladden the heart and mind of man.

Though the external part of the flowers of the fruit-trees, with their delicate units and smell, have disappeared, we see them succeeded by their luscious and useful fruits, to which they were merely intended to serve as a protection while young and apt to be injured by the cold nights of the early spring. The warmth which now prevails is very favourable to the thorough ripening of such fruits as the gooseberry, the currant, and the cherry, and the influence of this warmth is so great that fruits, which are acid in the morning, often become sweet before night. The presence of a considerable quantity of sugar in fruits assists to preserve them; hence, in dry warm summers, apples and pears keep much better than in cold cloudy seasons; and preserves or jellies may be made with less sugar in bright sunny years than in wet and gloomy ones.

The absence of rain is, in some degree, compensated for by the very heavy dews which fall on the clear cloudless nights, and which refresh and nourish the grain, now advancing to maturity. After the ear is well filled, dry weather is very desirable, to harden the seed, which then keeps better, is more easily threshed, and furnishes better flour.

The insect tribes are now extremely numerous; the cheerful hum of the grasshopper enlivens the fields; and the beetle, buzzing through the air, breaks the silence of evening. The annoyances produced by many insects are so incessant as to lessen the pleasure of a twilight walk, though we may console ourselves by reflecting that they are not so troublesome and dangerous as those of tropical countries. The domestic animals seem to suffer from their bites more than human beings. These wounds of insects are sometimes made to obtain nourishment, at other times to deposit their ova; but most insects for this purpose resort to the plants or to the earth.

The cool and grateful shade of trees is now too inviting to be neglected, and amid the woods we may meet with some of the most beautiful wild-flowers which this country produces, as well as many which furnish indications of the weather, which no one should neglect, if they desire to escape those sudden showers, or the approach of which we have no other intimation. The scarlet pimpernel, or *anagallis arvensis*, has received the name of "the poor man's weather-glass." The observation of this, and other plants, the opening and closing of which are regulated by the degree of light, is at once interesting and instructive.

At early morn  
Court the fresh air, explore the heaths and woods,  
And, leaving it to others to foretell,  
By calculation sage, the ebb and flow  
Of tides, and when the moon will be eclipsed,  
Do you, for your own benefit, construct  
A calendar of flowers, plucked as they blow,  
Where health abides, and cheerfulness, and peace.

WORDSWORTH.





M D	W D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN RISES	SUN SETS	M AGE	High Water at Lon Bridge, morn. & ev.
1	F	Lammas Day—Lammas seems to have been held as a day of thanksgiving for the new fruits of the earth. It was observed with bread of new wheat; and there was a custom in some places at no distant period for tenants to be bound to bring in wheat of the new crop to their lord on or before this day. The most rational explanation of the word is that which derives it from the Saxon <i>Half mass</i> (loaf mass, or the loaf festival), the <i>f</i> being in time softened away on account of the difficulty of pronouncing it before <i>m</i> —Slavery abolished in the British Colonies, 1834.	4 26	7 45	28	0 49 1 12
2	S	Battle of Blenheim, 1704—Arkwright died, 1792	4 27	7 43	29	1 32 1 53
3	S	11TH SUNDAY AFTER TRINITY—Bank of England incorporated, 1732	4 29	7 42	●	2 11 2 28
4	M	St. Dominic—Shelley born, 1792—East India Docks opened, 1806	4 30	7 40	1	2 47 3 2
5	Tu	Fenelon born, 1651—Lord Howe died, 1799	4 32	7 38	2	3 18 3 35
6	W	Duke of York born, 1844—Ben Jonson died, 1637—Imprisonment for debt abolished in England, 1844—Transfiguration	4 33	7 37	3	3 49 4 5
7	Th	Queen Caroline died, 1821	4 35	7 35	4	4 20 4 38
8	F	George Canning died, 1827—Shelley died, 1822—Marchol Ney shot, 1815	4 37	7 33	5	4 55 5 11
9	S	Accession of L. Philippe to the French Throne, 1830	4 38	7 31	6	5 29 5 49
10	S	12TH SUNDAY AFTER TRINITY—St. Lawrence broiled to death, A.D. 259—Observatory at Greenwich founded, 1675	4 40	7 29	●	6 9 6 30
11	M	Dog Days end—Grouse Shooting begins	4 41	7 27	8	6 55 7 22
12	Tu	Lord Castlereagh died, 1822	4 43	7 25	9	7 50 8 26
13	W	New Poor Law passed, 1834—Queen Adelaide b. 1792	4 44	7 24	10	9 7 9 48
14	Th	Printing invented, 1437—Drogheda stormed by Cromwell, 1649	4 46	7 22	11	10 30 11 14
15	F	Napoleon the Great born, 1769	4 48	7 20	12	11 52
16	S	The Manchester Massacre, 1816—Andrew Marvel died, 1678	4 49	7 18	13	0 23 0 56
17	S	13TH SUNDAY AFTER TRINITY—Duchess of Kent born, 1786—Battle of Smolensko, 1812	4 51	7 16	○	1 23 1 49
18	M	Beattie died, 1803	4 52	7 14	15	2 11 2 37
19	Tu	Royal George sunk at Spithead, 1782	4 54	7 12	16	2 58 3 20
20	W	Robert Bloomfield died, 1823	4 56	7 9	17	3 42 4 1
21	Th	St. Bernard—Battle of Bosworth Field	4 57	7 7	18	4 22 4 41
22	F	The Cities of Herculaneum and Pompeii buried by a volcano, A.D. 63—Warren Hastings died, 1818	4 59	7 5	19	5 1 5 20
23	S	American War commenced, 1775	5 0	7 3	20	5 40 5 59
24	S	14TH SUNDAY AFTER TRINITY—St. Bartholomew	5 2	7 1	21	6 19 6 41
25	M	David Hume died, 1776—Sir W. Herschell d. 1822	5 4	7 59	22	7 3 7 29
26	Tu	Prince Albert born, 1819—Trincomalee taken, 1795	5 5	7 57	23	7 59 8 36
27	W	Admiral Blake born, 1599, died, 1657	5 7	6 55	24	9 16 9 57
28	Th	St. Augustine, Bishop of Aleppo, died, A.D. 430	5 8	6 52	25	10 37 11 15
29	S	St. John Baptist beheaded, A.D. 30—Dr. Paley b. 1743	5 10	6 50	26	11 51
30	F	The Act for the Abolition of Slavery passed, 1833	5 12	6 48	27	0 21 0 43
31	S	15TH SUNDAY AFT. TRINITY—John Bunyan d. 1688 St. Sebastian, stormed, 1813	5 13	6 46	28	1 6 1 26

THE MOON.  
N. Moon 3rd 7 24 M  
First Qr. 10th 10 40 N  
F. Moon 17th 1 16 A  
Last Qr. 24th 6 27 A

AUGUST.—*Sextilis* was the ancient Roman name for this month, being the sixth from March. It was changed by the Emperor Augustus, who gave it his own, because in this month Cæsar Augustus took possession of his first Consulship, celebrated three triumphs, reduced Egypt under the power of the Roman people, and put an end to all the civil wars. The Saxons called this month *Arn-monath*, intimating that this was the month for filling the barns with the produce of the land. *Arn* is the Saxon word for harvest.

#### IN SEASON.

FISH.—Barbel, carp, dabs, dace, eels, gurners, haddocks, haddock, herring, pike, prawns, plaice, loasters, salmon, skate, soles, tench, thoro-hack, turbot, and whiting.

GAME.—Grouse, from the 12th.  
MEAT AND POULTRY as in July.

FRUIT.—Hoe, rake, weed, and stir the surface under gooseberry compartments, and around all fruit trees. Mat up small fruit on north walls. Look over grafted trees. Go on with budding. Hoe, weed, and keep every part of the ground in order.

Things to be remembered in August.—1. Annual licence to be taken out by hawkers and pedlars. Two first Sundays, borough and county rates to be paid to church doors. 19. Last day for leaving with overseers objections to county electors. 25. Last day for service of objections on electors in counties, or their tenants, and for service on overseers of objections to borough electors. 29. Overseers of parishes and townships to send lists of electors and number of objections to the high constable of the hundred. 31. All taxes and rates payable on March 1st must be paid on or before this day, by persons claiming to be enrolled as burgesses.



AUGUST, 1845.

## SONNET.

With lingering kiss, the drowsy Lord of Light  
Like Antony, when to th' Egyptian Queen  
He bade farewell, hangs on the cheek of Night  
Within her chamber of the deep!—I ween,  
He'll hasten thither too at evening hour,  
Leaving grey Twilight as his deputy  
To keep awake the eyes of ev'ry flow'r  
That weeps the Day's decline so soon to see!  
Or is't that Sol at this young Bacchus' birth,  
Drinks of the juicy grape, and ebriate  
Hurries to Tethys' wat'ry couch, from Earth  
To hide himself?—he rises now so late,  
With face all flush'd, that e'en cold Dian's orb  
Seems something of the red-grape to absorb!

W.

## ASTRONOMICAL APPEARANCES.

ABOUT the 10th of this month look for the appearance of showers of falling stars. Strange as this announcement may appear, it is nevertheless true, that at that time and in a still more profuse degree, on the 12th or 13th of November, immense flights of these extraordinary meteors take place. In the central States of America, and in all the temperate countries of Europe, thousands of them have appeared to sweep along at once, and in continued succession for several hours, so that almost the whole visible canopy of the sky seemed to be in a blaze. So regular have these appearances become, they are considered by the scientific men of most countries to be regular periodical phenomena. They appear to have their origin beyond the limits of our atmosphere; to fall towards the earth by the attraction of gravity; to travel the earth's atmosphere at a rate equal to four or five miles in a second; to be composed of light materials, and to undergo combustion during their flight. What they are, and whence they come, is a mystery. Shakspeare calls them "bright exhalations of the evening," but that, we may intimate, was before *electricity* was discovered. Our readers should observe and record their observations.



The apparent magnitude of these meteors is widely different. The greater part of them resemble stars of the 3rd, 4th, 5th, and 6th magnitudes; but some occur which surpass stars of the 1st magnitude, and even exceed Jupiter and Venus in brilliancy. In some of them the globular form can be easily recognized: these are, in every respect, similar to *fire-balls*; and, in fact, it is impossible, from their appearances, to make any distinction between the larger shooting stars and the smaller individuals of meteors to which the name of fire-balls is usually appropriated.

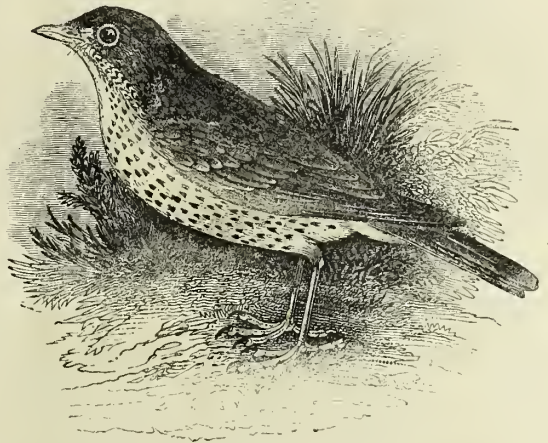
Shooting stars appear to be equally numerous in every climate. The weather seems to have no influence upon their number. They are observed at all times of the year; but, generally speaking, they appear to be more abundant in the end of summer and autumn than at the other seasons.

Some of the shooting stars leave a luminous train behind them, which marks their path through the sky with a milk-white light. These trains for the most part disappear in a few seconds; but sometimes they continue longer, and even for several minutes. In the case of actual fire-balls, Dr. Olbers observed trains which continued from six to seven minutes; and Brandes, in one instance, estimated that fifteen minutes elapsed between the extinction of the fire-ball and the disappearance of the luminous train. The trains in general assume the form of a cylinder, the interior of which is void of luminous matter; and not unfrequently, before their disappearance, they take a curved form. The most probable explanation is, that they are caused by a gaseous matter left behind by the meteor, and bent by currents of air. Deluc maintained that certain phosphoric exhalations generated in the earth, and becoming inflamed in the sky, formed the true essence of the shooting stars.

Towards the end of the month, when the evenings are very clear, the planet Venus may be seen very near the western horizon sometime after sunset. Mars, towards the east of Saturn, gives at midnight a splendid appearance to the southern skies. He will be in opposition to the Sun on the 18th, when he will be at his least distance from the earth, and appear the largest. Saturn and Mars will be favourably situated during the month for telescopic observation.

## NOTICES ON NATURAL HISTORY, &amp;c.

AUGUST.



THE WOODLARK.

The woodlark is generally found near the borders of woods, from which it derives its name; it perches on trees, and sings during the night, so as sometimes to be mistaken for the nightingale; it likewise sings as it flies, and builds its nest on the ground, similar to that of the skylark. The female lays five eggs, of a dusky hue, marked with brown spots. It builds very early, the young, in some seasons, being able to fly about the latter end of March.

The sprightly and ever-varying song of this bird is most welcome to the ear

Of one who long in populous city pent,  
Where houses thick and sewers annoy the air,  
Forth issues on a summer's morn to bathe  
Among the pleasant villages and farms.

THE cares and toils of the husbandman are now about to receive their full reward. The seeds, committed to the earth in spring, having been watered by the gentle showers of April and May, warmed and nurtured by the suns of June and July, have attained their perfect stature, and brought forth, according to the soil and situation, some ten-fold, and some a hundred-fold.

Beautiful as is the sight of wide fields of yellow corn, waving its richly laden top before the breeze, it is infinitely more animating and delightful to see the stately stems fall before the regular and measured stroke of the reaper, whose toil is lightened by the thought that abundance is thus poured from the lap of earth into the garner of her children, to support them when the season of unfruitfulness is nigh. It is a subject worthy the consideration of every one, to calculate what a vast quantity of nourishment is, by the agency of the vital principle in seeds, thus annually abstracted from the atmosphere and the earth, and reduced to a state fit to minister to the sustenance of men and animals. We shall thus find that the existence of most animated beings is dependant for its continuance on the law or principle, inherent in plants, of producing a seed similar to that from which it sprang. The perfecting of this seed is the grand object of the various processes and actions which take place in the plant, from the commencement of germination; and, when it is completed, the end for which the plant was formed is accomplished, as far as the cereal grains are concerned, in respect to the interests of man and the domestic animals. To secure this precious treasure, all persons, young and old, engage in the work of the harvest; and the termination of their toils was formerly, and in some places still is, celebrated by a festival called Harvest-home. But, whether the festival be observed or not, we hope that there are few who can witness the additions made to our stores of provisions, without experiencing a feeling of exultation, ending in grateful emotions and thankfulness to Him who promised that "seed-time and harvest should not fail," and

Whose blessings fall in plenteous showers  
Upon the lap of earth,  
Which teems with foliage, fruits, and flowers,  
And rings with infant mirth.—J. MONTGOMERY

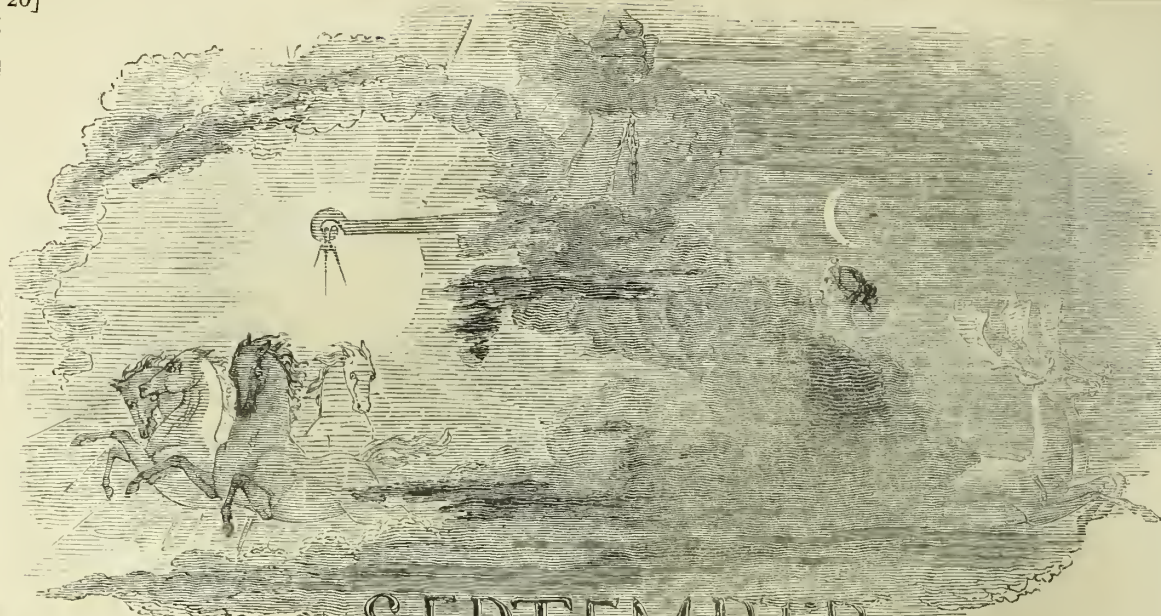
The fruit-trees also yield their share of luxuries to our tables, or materials for preserves, or the still more wholesome beverage, cider.

The plants now in flower belong mostly to the tribe of compound plants, such as the dahlias and sunflowers in the gardens, and the different species of thistles in the fields. The seeds of these supply much food to certain kinds of birds, especially the goldfinch, which, from feeding chiefly on the thistle, is called *fringilla carduelis*. Now it is worthy of remark, that while most birds have finished the process of incubation, and their young are fledged and on the wing nearly two months ago, it is only about the middle of this month that the young goldfinches appear, shortly after the plants have begun to flower from which they are to obtain their food. This regular succession of plants and birds holds everywhere; but is best seen in the Himalayan mountains, where, from the wide difference of temperature at different seasons, the character of the vegetation is totally changed, and in proportion as this takes place, a difference is observed, not only in the birds, but also in the animals and insects which frequent these regions. The entomologists of our own country are well aware of this relation between the appearance of particular plants and particular insects, which resort to these either for food or to deposit their eggs. During this month some of the most beautiful of the butterfly tribe are to be seen.

While these winged insects are only making their appearance, some of our migratory birds prepare to leave us. The earliest of these is the puffin, which rarely prolongs its stay beyond the 11th of August.

Ceaseless change pervades all the works of nature, and furnishes both to the eye and mind subjects which are constantly withdrawn and again renewed for observation and reflection.





# SEPTEMBER

THE MOON.				ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.		SUN RISES	SUN SETS	M AGE	High water at Lon. Bridge, morn. & ev.		Fruit.—Plant all sorts of hard fruit trees. Protect fig trees. Shield late grapes by netting. Dig and ridge up where trees are pruned. Nail up fruit trees.	
New Moon 1st 9 34 A.		1	M	St. Giles, Abbot of Nismes, martyred A.D. 717—Partridge shooting begins		5 15	6 44	●	1 45	2 2		
First Qr. 9th 5 25 M.		2	Tu	Great fire of London, 1666, foretold by Lilly 15 years previous—New style adopted, 1752		5 16	6 41	1	2 18	2 36		
Full Moon 15 10 13 M.		3	W	Battle of Worcester, 1651—Oliver Cromwell died, 1658—Riots at Oxford, 1830		5 18	6 39	2	2 51	3 7		
Last Qr. 23d 10 25 A.		4	Th	Riots at Manchester, 1830		5 19	6 37	3	3 23	3 39		
		5	F	Malta captured, 1800—First American Congress, 1774		5 21	6 35	4	3 55	4 12		
		6	S	Blucher died, 1819—Hannah More died, 1833—Shakespeare Jubilee, 1769		5 23	6 32	5	4 31	4 46		
		7	S	16TH SUNDAY AFTER TRINITY—St. Eumarchus—Bullon born, 1707—Dr. Johnson, b. 1709—The Porteus riots at Edinburgh, 1736—Battle of Borodino, 1812		5 24	6 30	6	5 5	5 25		
		8	M	Nativity B. V. M.		5 26	6 28	7	5 44	6 6		
		9	Tu	William the Conqueror died, 1087—Battle of Flodden Field, 1513—Municipal Corporation Act passed, 1835—St. Sebastian stormed, 1813		5 27	6 26	8	6 32	6 58		
		10	W	Mungo Park died, 1771		5 29	6 23	9	7 29	8 7		
		11	Th	Thompson born, 1700—Lord Thurlow died, 1806		5 31	6 21	10	8 52	9 37		
		12	F	Siege of Vienna, 1683—Battle of Aberdeen, 1684		5 32	6 19	11	10 22	11 5		
		13	S	C. J. Fox died, 1806—General Wolfe killed, 1759		5 34	6 16	12	11 43	—		
		14	S	17TH SUNDAY AFTER TRINITY—Moscow burnt, 1812—The cross found by the Empress II. Lena, A.D. 615		5 35	6 14	13	0 14	0 42		
		15	M	Huskisson killed, 1830, at the inauguration of the Manchester and Liverpool Railway		5 37	6 12	14	1 7	1 33		
		16	Tu	George I. landed in England, 1714—Foundling Hospital burnt, 1742—Louis XVIII died		5 39	6 9	15	1 56	2 15		
		17	W	Siege of Gibraltar ended, 1782—London and Birmingham Railway opened throughout, 1825		5 40	6 7	16	2 37	2 56		
		18	Th	Laurence Sterne died, 1768—Day and night equal		5 42	6 5	17	3 16	3 36		
		19	F	Battle of Poitiers, 1356		5 43	6 3	18	3 54	4 13		
		20	S	Battle of Newbury, 1643		5 45	6 0	19	4 31	4 48		
		21	S	18TH SUNDAY AFTER TRINITY—St. Matthew—France declared a Republic, 1793—Christ Church evasions commence		5 47	5 58	20	5 7	5 26		
		22	M	Flight of Mahomet, A.D. 622—Charles V. died, 1558—New Post-office opened, 1829		5 48	5 56	21	5 45	6 5		
		23	Tu	The autumnal quarter commences—Major Cartwright died, 1824		5 50	5 53	22	6 27	6 50		
		24	W	Don Pedro, ex-Emperor of Brazil, died, 1834—Samuel Butler died, 1680		5 52	5 51	23	7 17	7 50		
		25	Th	Porson died, 1808		5 53	5 49	24	8 30	9 11		
		26	F	Constantinople founded, A.D. 329—"The Holy Alliance" formed by the European Sovereigns after the defeat and expulsion of Napoleon—Marquis Wellesley died, 1842		5 55	5 46	25	9 53	10 32		
		27	S	Brindley died, 1772—Battle of Busaco, 1810		5 56	5 44	26	11 9	11 43		
		28	S	19TH SUNDAY AFTER TRINITY—Commencement of the Mosaic year—Sheriff sworn into office		5 58	5 42	27	—	0 11		
		29	M	St. Michael, the Archangel—Quarter day—Rents due		6 0	5 40	28	0 32	0 53		
		30	Tu	St. Jerome of Prague, first translator of the Bible, died, A.D. 421—George Whitfield died, 1770—The scales and standards taken from the French in the Peninsular war deposited in White-hall Church, 1812		6 1	5 37	29	1 10	1 30		

SEPTEMBER, according to Vossius, is composed of the word *Septem*, seven, and the termination *ber*. Priscian and Isidorus consider September to be composed of *Septem* and *imber*, a shower of rain; this month being the commencement of the rainy season. The Saxons called this month *Gerst month*, because barley was then called *gerst*, the name barley being given to it by reason of the drink made therewith, called *beer* and *beerlegh*, and thence to barley. They also called it *Halige-month*, or the Holy month, from an ancient festival held at this season of the year.

## IN SEASON.

**FISH.**—Barbel, carp, cockles, dace, eels, flounders, gurnets, bael, dockes, berrings, lobsters, mussels, oysters, perch, pike, plaice, shrimps, soles, tench, thornback whitties.

**MEAT.**—Beef, mutton, veal. Grass-lamb is best from April to June. Beef is best from Michaelmas to Midsummer. Pork is best from Michaelmas to March.

**POULTRY.**—Pullets, fowls, chickens, ducks, pigeons, rabbits. Game—Grouse, partridges.

**VEGETABLES.**—Artichokes, beans (scarlet), celery, Jeram, artichokes, leeks, onions, shallots, turnips.

**BIRDS.**—Broods of young goldfinches appear, linnets congregate, and rooks are very noisy as they return home at sunset; the little flycatcher disappears, and the owl hoots; but-rifles and moths are still numerous, and lady-birds are often seen. Partridge shooting begins.

**THE FARM.**—The farmer's year may be said to be completed, but his work is never ended; no sooner is one harvest finished than he must prepare his ground for another. Plough your fallows for the last time. The end of this month is the period when the cultivator's main crops of wheat must begin to be sown. Plough your bean and pea, and clover lays, or stubble, or this crop; dress the heavy soils with lime. Plough your winter fallows.

**Things to be remembered in September.**—1 and 8. (Two Sundays preceding the 15th).—Lists of objections to the Municipal Reform Act, and claims and objections for borough lists to be affixed to church doors. 5. Overseers of parishes and boroughs to make out burgess lists under Municipal Reform Act, which must be delivered to town-clerk on this day. 8. Town clerks in boroughs to cause the burgess lists to be fixed in public places in boroughs. From this day till 15th. 15. Claims of persons omitted in the burgess lists and objections to persons improperly inserted, to be given to the town-clerk in writing on or before this day; notice of the objection also to be given to the person objected to. 22. Constables, churchwardens, surveyors, and householders, to meet, and prepare lists for selection, by the justices, of way-wardens or surveyors of highways. 24. Lists of claimants and of persons objected to, to be fixed by town-clerk in some public place of each borough, from this day till October 1.



SEPTEMBER, 1845.

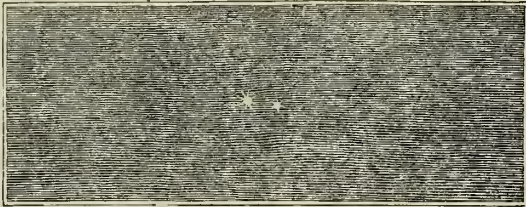
## SONNET.

Now comes apace the evening of the year,  
With all its sunset glories spread around—  
How beautiful the gilding doth appear  
On that high waterfall, whose distant sound  
Murmurs a diapason to the song  
Of warbling treble pipes the groves among,  
Which blackbird, thrush, and woodlark sweetly blow.  
Poor innocents! they do it not for show,  
Or gain,—but from some inward thankfulness  
That they are free from prowling man's design,  
Who at this season levies his distress  
On many a partridge-home, and doth consign  
The parent, or the offspring bird, or mate  
To be henceforth bereaved or desolate!

W.

## ASTRONOMICAL APPEARANCES.

When a telescope of considerable power is directed to certain stars which appear single to the naked eye, another star, generally much smaller than that which appears to the unassisted eye, is seen quite adjacent to it. These form what is called a **DOUBLE STAR**. Not more than six or eight of such stars were known to the astronomers of the 17th century; but now, such is the pertinacious industry of observers, upwards of six thousand have been discovered, named, and registered. One of these beautiful objects, the fine double star Castor, will entertain the lover of astronomical phenomena in the clear mornings of this month. The best time for viewing him will be about



3 o'clock, when it will appear pretty high in an easterly direction. After observing this object he may lower his telescope a little, and, turning it to the south-east, observe the stars of Orion and the nebula in that constellation. The time will also be a favourable one to inspect Jupiter, who will be shining high in the southern skies.

In the evenings of this month, the double star E in Lyra (being then high in the western parts of the heavens) will form an interesting subject for investigation. This star, with a low telescopic power of 5, resembles Castor when magnified with 450. With the power of 120, this beautiful double-double or quintuple star may be seen as the annexed figure represents. The right ascension of E in Lyra is 18h. 39m., and its declination 39d. 31s., North.



The following seven double stars are believed to revolve in the subjoined periods:  $\alpha$  Coroni in 43 years;  $\zeta$  Cancri, 57 years;  $\xi$  Ursæ Majoris, 61 years;  $\epsilon$  Ophiuchi, 80 years;  $\sigma$  Coroni, 200 years; Castor, 215 years;  $\gamma$  Virginis, 513 years. In 1830 Sir J. Herschel measured 1236 double stars. The observation of astronomers should be steadily directed to the progressive changes of the fixed stars, for it is among them that great and rapid discoveries may be most confidently expected.

The occurrence of triple stars or of approximate conjunctions of three, is much rarer than that of Pairs, but still we find numbers sufficient to excite a profound interest. Struve has specified 11 sets of bright triple stars, that is of conjunctions of three bodies, within the space of  $32''$  and none of which is too small to be seen with an ordinary telescope (none being smaller than his 8th magnitude); and of these 11 the calculation of probabilities will not permit us to suppose that more than one system owes its character to mere optical proximity. Systems of three suns connected by the physical law of attraction, and revolving perhaps round their common centre of gravity, are thus at once brought upon the scene. In another list our astronomer records 57 more within the same distance of each other, but in which one attendant belongs to the class of smaller magnitudes,—a list containing likewise without doubt, many physical systems; and in a third series of 59 similar combinations, not confined, however, within the limits of  $32''$  of distance, he exhausts our present knowledge of the subject.

These combinations of stars exhibit relations of the most extraordinary and exciting interest. By long observation many of them have been found to have regular motions round each other; to vary periodically in their amount of illumination, and to be adorned with complementary colours. Are these, then, the suns of space? Are they central luminaries of great planetary trains? That they are so, is beyond question; and "yet," says Nichols, "how wonderful is it! and how wide the field of novel contemplation opened by their discovery! How strange the notion of such mighty orbs rolling round each other, as a small planet revolves around our Sun! It is when, one goes into regions so new and remote, that the character of the universe, in its majesty and infinite variety, appears in its most striking attributes. In search of magnificence, it is true, we need not wander far,—witness the fields which encircle your home, the blade of the modest grass which adorns them; but those heavens are fresh, and familiarity has not left its foot-print on their untrodden floor. In the silence of midnight, that noble curtain stretched out above me, and the idea present and impressive, of its great orbs obediently pursuing their stupendous paths, I confess there is a solemnity which sometimes falls upon the spirit, not unlike the feeling of the Patriarch, when he heard that 'still small voice,' and knew it to be the presence of God!"

## NOTICES ON NATURAL HISTORY, &amp;c.

SEPTEMBER.



## THE WHINCHAT.

THE Whinchat is a solitary bird, frequenting heaths and moors; it has no song, but only a simple unvaried note, and in manners very much resembles the stonechat; it makes its nest very similar to that bird, and is generally seen in the same places during the summer months; the female lays five eggs, of a lightish blue, very faintly sprinkled with small rusty spots. In the northern parts of England, it disappears in winter; but its migration is only partial, as it is seen in some of the southern counties at that season. It feeds on worms, flies, and insects. About the end of summer it is very fat, and at that time is said to be scarcely inferior in delicacy to the ortolan.

One of these birds brought up from the nest by Mr. Sweet, used to sing the whole day through, and very often at night. It sang the notes of the whitethroat, redstart, willow warbler, missel thrush, and nightingale.—Yurrell.

THE great annual business of the vegetable world being now nearly concluded, Nature begins to shew signs of her determination to rid herself of all superfluous ornaments and outworks, and to retire to her inmost recesses. In the latter part of this month the swallow takes its departure to warmer climes. The other summer birds are also gone from us—broods of young goldfinches appear—the linnets congregate. Few winter birds visit us till the following month, yet we may see the woodcock, the fieldfare, and the ring ouzel. The stormy petrel ventures further south than is her wont in brighter and milder weather; while many other sea birds change their habitation, the sea gulls—the Manx puffin, and the Solan goose. Owls are more noisy in this month than before. Many of the songsters of the spring resume their vernal notes, though with less brilliancy and constancy than at an earlier period. The note of the woodlark is now in its greatest perfection. Many flies become blind and die; yet a few other tribes of insects abound still more than during the hot weather. The earwigs are found in every garden, and the spider's webs hang on every bush. The gardens and the hedge-rows are still gay, but their gayness is of a different character. Red, white, and blue colours in flowers are much less abundant than at an earlier season, and yellow flowers take their place. By far the greater number of the compound flowers are yellow, and this is the season of their greatest abundance. The bright green leaves, which so lately wore an appearance of long-enduring life, and fluttered joyously in the breeze, now assume a wan and sickly look, and rustle in the wind, which is soon to sweep them from their place of growth. Leaves are intended as an extension of the surface of plants, in order to facilitate the preparation of those juices which are necessary for their growth and well-being; but as this growth, and consequently the demand for increased nourishment, is carried on, in most vegetables, solely in spring and summer, the additional surface is no longer required, and consequently the leaves begin to decay. Their destruction, or rather decomposition, is greatly assisted and hastened by the development and operation of a number of fungi which now make their appearance. These may be seen spotting with black the leaves of the sycamore, and other maples. Nature is ever economical of her means, and never fails to "gather up the fragments, that nothing may be lost." Accordingly, whatever has served the primary object of its formation is immediately subjected to processes which fit it for some secondary use. Both animal and vegetable substances are liable to the attack of fungi, which derive their nourishment solely from the juices of the matters they fix on. Hence the immense number of these which we see in autumn engaged in this work of destruction. Many of these are extremely beautiful in form and colour; several of them are regarded as luxuries, and are extensively used, while others are extremely poisonous. A careful examination of them is necessary to secure us from the effects of mistaking poisonous for wholesome soris; but even the common mushroom is often unwholesome from its particular state or place of growth. It is a good general rule to take those only which are young and small, and to avoid those which are of a pale colour, or which grow under the shade or drip of trees.

With the retirement of our side of the earth from the sun, shorter days and cooler mornings and evenings become our lot. The animal as well as the vegetable world display their sense of this change; and those delicate and most correct of all barometers and thermometers—the migratory members of the bird tribe—act upon this feeling with a regularity and accuracy which excite our highest wonder, and merit the most careful investigation. The swallows, from being so much on the wing, and so constantly before our eyes, are the most observed; and may be seen about the end of the month congregating in vast numbers, preparatory to their departure. The precise period of this departure is regulated by the mildness or severity of the weather, as in very warm autumns they linger till October, and even a few may be seen in November. To compensate for their absence, the redwing and fieldfare, which left us in March, now return.





**THE MOON.**  
New Moon 1st 10 58m.  
First Qr. 8th 11 31a.  
Full Moon 15th 9 56m.  
Last Qr. 23d 8 14m.  
New M. 30th 11 41a.

**OCTOBER.**—This month was called *Dominatus*, in the time of Domitian; but after his death, it was, by the desire of the senate altered to October, (so named from two Latin words, *Octo*, and *ember* signifying the eighth month,) every one hating the name and memory of so detest a tyrant. The Saxons called it *Wyn-monath*, or Wine-month, and *Winter-fallath*.

#### IN SEASON.

**FISH.**—Barbel, brill, carp, cod, cockles, crabs, dace, eels, haddocks, herrings, lobsters, mussels, oysters, perch, pike, shrimps, soles, tench, throut, turbot, and whiting.

**MEAT** as in Sep-ember, with the addition of *decepcion*.

**POULTRY**, as in September. All kinds are cheapest now, when the same season commences.

**GAME.**—Grouse, partridges, pheasants, bantams, snipe, wild fowl.

**VEGETABLES.**—Artichokes, broccoli, celery, leeks, onions, parsnips, salsol, spinach (Winter), turnips.

**FRUIT.**—Plant all sorts of hardy fruit trees. Protect fig trees and shield late grapes. Prepare ground for new plantations. All sorts of fruit seed may now be sown with greater advantage than in spring.

All kinds of game are well on the wing. Pheasants found near water.

#### ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.

M	D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN RISES.	SUN SETS.	M AGG.	High Water at Lon Bridge, morn. & ev.	FLOWERS.—The following plants are now in flower: hollyhock, Michaelmas daisy, stocks, nasturtia, marigold, mignonette, heartscase, American groundsel, the dahlia, china asters, saffron crocus, lavender, china rose, rocket, &c. The alkengi now ho's up its scarlet bladders encompassing a scarlet cherry full of seeds. Barberries are now turning red, and give a pretty autumnal appearance to plantations and gardens.	
1	W	St. Remigius, Archbishop of Rheims, died, A.D. 535— Pheasant Shooting begins	6 3	5 35	1	46	2 3	
2	Th	Major André hung as a spy by the Americans, 1780 —London University opened, 1828	6 5	5 33	2	19	2 38	
3	F	King's College opened, 1831—Robert Barelay d. 1690	6 6	5 31	3	53	3 12	
4	S	Sir John Rennie died, 1821—Andrew Selkirk left on the Island of Juan Fernandez, 1704	6 8	5 28	4	30	3 47	
5	S	20TH SUNDAY AFTER TRINITY—Horace Walpole, Earl of Orford, born, 1717	6 10	5 26	5	4	4 25	
6	M	Louis Philippe, King of the French born, 1773	6 11	5 24	6	45	5 6	
7	Tu	Christophe, Emperor of Hayti, died, 1820	6 13	5 22	7	27	5 53	
8	W	The Eddyston Light House finished in 111 days, 1759	6 15	5 19	8	21	6 50	
9	Th	St. Denys, Bishop and Martyr—Dutch fleet defeated, 1797	6 16	5 17	9	23	7 59	
10	F	Oxford and Cambridge Michaelmas term begins— Kosciusko defeated by the Russians, 1794—Nottingham Castle burnt, 1831	6 18	5 15	10	45	9 29	
11	S	Old Michaelmas Day—Canova died, 1822	6 20	5 13	11	13	10 52	
12	S	21ST SUNDAY AFT. TRINITY—Wat Tyler killed, 1381	6 21	5 11	12	28	11 58	
13	M	Translation of St. Edward the Confessor, 1042	6 23	5 8	13		0 24	
14	Tu	Wm. Penn born, 1644—Battle of Hastings, 1066	6 25	5 6	14	47	1 12	
15	W	Murat shot for attempting to recover his Kingdom, 1815	6 27	5 4	15	33	1 53	
16	Th	The Parliament Houses destroyed by fire, 1834	6 28	5 2	16	13	2 32	
17	F	Sir Philip Sidney killed, 1586	6 30	5 0	17	2	3 12	
18	S	St. Luke the Evangelist died, A.D. 70	6 32	4 58	18	30	3 48	
19	S	22ND SUNDAY AFT. TRINITY—Dean Swift d. 1745 Talmu, the Kemble of France, died, 1826—Henry Kirke White d. d. 1816	6 33	4 56	19	4	4 21	
20	M	Battle of Navarino, 1827	6 35	4 54	20	40	4 58	
21	Tu	Battle of Trafalgar—Nelson killed, 1805	6 37	4 52	21	16	5 36	
22	W	Lord Holland died, 1840—Sir Cloudesley Shovel wrecked on the Scilly Islands, 1707	6 39	4 50	22	56	6 18	
23	Th	The Royal Exchange founded, 1667—Battle of Edg- bill, 1642	6 40	4 48	23	43	7 7	
24	F	Edict of Nantz revoked by Louis XIV., 1685	6 42	4 46	24	42	8 20	
25	S	St. Crispin, Tutelary Patron of Shoemakers, martyred, A.D. 303—Battle of Agincourt, 1415	6 44	4 44	25	59	9 38	
26	S	23RD SUNDAY AFTER TRINITY—Great Riots at Bristol, 1831—Hogarth died, 1764	6 46	4 42	26	14	10 49	
27	M	Sir Walter Raleigh beheaded, 1618	6 48	4 43	27	20	11 50	
28	Tu	St. Simon and St. Jude, Apostles and Martyrs, A.D. 74	6 49	4 38	28		0 11	
29	W	Morland died, 1804—Hare hunting begins	6 51	4 36	29	33	0 53	
30	Th	Alfred the Great died, 900—buried at Hyde Abbey, near Winton. The County Bridewell is built over the site of his grave—The Great Armory in the Tower of London burnt, 1841	6 53	4 34	30	13	1 31	
31	F	Allhallow Eve—John Evelyn born, 1620	6 55	1 32	1	50	2 29	

**BRUS.**—Fieldfares and redwings arrive, swallows and other birds take their departure. Various kinds of waterfowl make their appearance; and wild-geese leave the fens and go to the ree lands to devour the young corn. Caterpillars are seen climbing upon walls and preparing to enter into the chrysalis state.

*Things to be remembered in October*—1st, Mayor and assessors to hold an open court to revise the burgess lists under the Municipal Reform Act, sometime between the 1st and 15th Oct. three clear days' notice of such court being given. The revised list to be kept by the town clerk, and all persons therein entered to be entitled to vote, according to the act, from the 1st of Nov. 13th, Fire Insurance due at Michaelmas must be paid by 1st inst, or the policy becomes void. 10th, Annual Licence to be taken out by bankers or others issuing promissory notes for money, payable to bear, or the policy be allowed to be re-issued. 15th Accounts of waywardens, or highway surveyors, to be produced at a parish meeting to be held within 15 days before the special sessions.



OCTOBER, 1845.

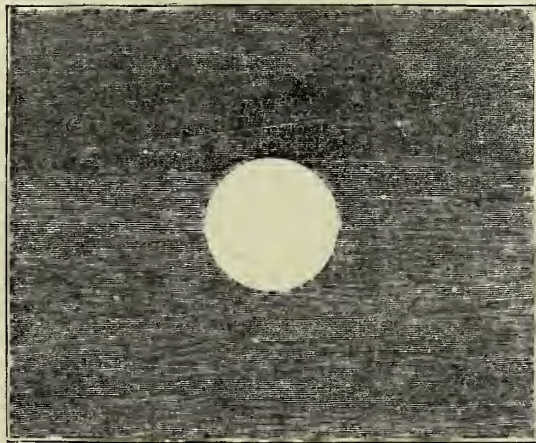
## SONNET.

This is the time for mute soliloquy,—  
Heart contemplation in a lonely wood,  
Whose paths by many a fallen leaf bestrew'd  
Lead you away as to Eternity,  
From all the noise and trouble of this life,  
Soothing the soul with dreams of future bliss  
Although where'er you turn each scene is rife  
With Nature's quick decay!—But still from this  
We can imbibe by sympathy refin'd  
A resignation to our own defeat,  
By that arch-enemy, old Time, and find  
A thrilling pleasure—a reflection sweet  
That when his scythe is done—Himself at rest,—  
Immortals we may be amongst the blest!

W.

## ASTRONOMICAL APPEARANCES.

To the illustrious Herschel astronomy is indebted for discovering a new primary planet—**URANUS**, which may be viewed this month to advantage.



That great man, while pursuing a design which he had formed, of making minute observations on every region of the heavens, on the 13th of March, 1781, observed in the foot of Castor, a small star, the light of which appeared to differ considerably from all others in its neighbourhood. On using a high magnifying power, it appeared evidently to *increase in diameter*; and two days afterwards he perceived that *its place was changed*. From these circumstances he concluded it was a comet; but it was not long before the error of this conclusion was determined, and the true character of his great discovery proved. Herschel named the planet *Georgium Sidus*, in honour of his zealous patron, George III; but foreign astronomers for a considerable time gave it the name of *Hersebel*, but afterwards changed it to *Cybele*, *Neptune*, and finally to *Uranus*, the name of the astronomic muse. His distance from the sun is 1,800,000,000 miles; his nearest approach to the earth is at a distance of 1,705,000,000 miles; his orbit 11,314,000,000, through which he moves in 30,686 mean solar days, or about 84 years. The best time for viewing him is when he is on the meridian, or due south, which we find to be as follows:—on the 1st of the month, at 49 minutes past 11; on the 15th, at 52 minutes past 10; and on the 31st, at 47 minutes past 9. The “sixth satellite” should be earnestly sought, as its existence has been doubted.

This month is a good one for investigating the Milky Way.

No one except Sir W. Herschel has ever seen all the satellites of *Uranus*. Sir J. Herschel has very lately determined some elements of the first and second which accord very closely with those given by his father; he has not found the rest which may arise, from the unfavourable southern position of the planet. The periodic times deduced from his observations are respectively 8d. 16h. 56m. 31.3sec., and 13d. 11h. 7m. 12.6sec. The orbits are nearly circular, and almost perpendicular to the ecliptic, being inclined to that plane in an angle of 78°58'; and what is extremely remarkable, as contrary to the otherwise unbroken analogy of the solar system, the motions of the satellites in their orbits are *retrograde*, or from east to west.

It is, indeed, attractive, to revert to the period when the forty-feet telescope first interrogated these profound heavens! The enthusiastic observer in the act of discovery rises before the imagination, and the peace of midnight and the beautiful twinkling of stars. The astronomer, during these engrossing nights, was constantly assisted in his labours by a devoted maiden sister, who braved with him the inclemency of the weather—who heroically shared his privations that she might participate in his delights—who planned the labour of each succeeding night, who reduced every observation, made every calculation, whose pen committed to paper his notes of observation as they issued from his lips; and she it was—Miss Caroline Herschel—who helped our astronomer to gather an imperishable name.

The limits to the space-penetrating power of telescopes is manifestly this:—No object fainter than the general light of the skies—a light constituted by the intermingling of the rays of all the stars—will ever be seen. Herschel calculated, however, that a telescope, at least three times more powerful than his, might be used. We are therefore led to rejoice that his speculations will be partly carried out by that high-minded and scientific nobleman, Lord Rosse, who seems to love science for its own sake, and, uninterrupted by any desire for applause, has particularly distinguished himself by attaining an end which has been for a long time a desideratum to scientific men—the production of large metallic reflectors. Until be accomplished the casting of his speculum, six feet in diameter, it was thought to be impossible; its focal distance is 52 feet; and its magnifying power may be judged of by the fact that a portion of the moon, the size of a common house, will be visible at one time, and the objects as they pass the meridional line, can be kept in the field of view or half an hour, therefore we may hope for great additions to this interesting department of science.

## NOTICES ON NATURAL HISTORY, &amp;c.

OCTOBER.



## STARLING.

THESE birds are very social, flying and feeding and roosting in large flocks. In feeding they will associate with the rook, the pigeon, or the daw. There is something singularly curious and mysterious in the conduct of these birds previous to their nightly retirement, by the variety and intricacy of the evolutions they execute at that time. They will form themselves perhaps into a triangle, then shoot into a long pear shaped figure, expand like a sheet, wheel into a ball, as Pliny observes, each individual striving to get into the centre, &c., with a promptitude more like parade movements than the actions of birds. As the season advances these prodigious flights divide, and finally separate into pairs, and form their summer settlements.—*Journal of a Naturalist*.

Charles Waterton, whose practical observations on Ornithology are well known, made twenty-four holes in the walls of an old ruin, near his residence in Yorkshire, to induce the starlings to remain and breed there. In the following spring each hole was occupied by a pair of starlings. He says, “The starling shall always have a friend in me. I admire it for its fine shape and lovely plumage; I protect it for its wild and varied song; and I defend it for its innocence.”

Broods of young goldfinches appear, linnets congregate, and rooks are very noisy as they return home at sunset; the little flycatcher disappears, and the owl hoots; butterflies and moths are still numerous, and lady-birds are often seen.

THE progressive decay of leaves, which had begun about the end of last month, proceeds with steady pace, and their vital actions and properties have been wrought upon, so as to cause the changes of colour and shrivelled aspect observable in the foliage of most of our trees. It is supposed that plants, in autumn, continue to absorb oxygen during the night, but lose the power of giving it out again, and restoring it to the atmosphere during the day, and that in this way some of the juices become so acid as to change the colour of the rest. This may be the case to a certain extent, and in some trees; but it does not appear to apply to all. Those leaves which become red—such as the cherry—may be affected in this way; but this is far from being the general colour. The plane-tree acquires a tawny colour; the oak, a yellowish green; the hazel, a yellow; the sycamore, a dirty brown; while the maple becomes pale yellow; the hawthorn, a tawny yellow; horn-beam, a bright yellow; the ash, a fine lemon; and the elm, an orange.

These varied hues give to woodland scenery, at this season of the year, its gorgeous appearance. He who now looks upon what he sees taking place before him, not merely with a painter's or a poet's eye, but with the spirit of a philosopher, has ample room for inquiry and investigation into the causes which enable some trees to retain unchanged their leafy honours, while others are compelled to resign them to become the sport and plaything of the wintry blast.

What is termed the fall of the leaf has been the subject of numerous speculations and hypotheses, all alike unfounded and unsatisfactory. It strikes us that the most universal and efficient, as well as most simple, cause of this act has been overlooked. What we are about to state refers merely to the fall, and not to the death of the leaf; the one of which actions is vital, while the other is, in a great measure, if not solely, mechanical. In what is termed the *axilla* or arm-pit of a leaf, that is, the point where it joins the stem or branch, upon careful inspection will be found a bud, or future stem or branch. This bud, in the greater number of trees, begins to swell in autumn; indeed in very warm seasons, it actually expands to its full size and length, as it should do in spring; and as this bud is always immediately above the old leaf, so in the process of expansion it pushes the footstalk of the leaf downwards, and causes it to break off at the joint or given point of connexion, which subsists between all leaves and the stem or branch. Evergreens retain their leaves till spring, as the buds in their axilla do not swell till that time. As a satisfactory proof that this is the real cause of the fall of the leaf, we may observe what happens when shrubs are transplanted. If by this operation the life of the plant be not destroyed, though the present leaves wither, new buds will expand, and push the old leaves off; but if the vital principle be destroyed, the leaves will wither as before, but will remain attached to the stem—a circumstance which every practical gardener deems an evidence that the plant is dead.

Most seeds and fruits are now perfectly ripened, and furnish their share of subsistence to man, bird, and beast. This is a time of abundance,—a season of plenty,—and that portion which cannot be consumed at the period of its maturity is stored up in various ways, and by different means, as provision against a time of need. Though we boast not the vine and its clustering grapes, or tread its juice into our vats, the animation of the wine countries is nearly equalled by the hop-gathering and cider-pressing of our midland, western, and southern counties.





# NOVEMBER

## ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.

M D	W D		SUN RIFES.	SUN SETS.	M. AGE	High water at Lon. Bridge, morn. & ev.
1	S	All Saints—Sir Matthew Hale born, 1609—Great Earthquake at Lisbon, 1755	6 55	4 32	2	2 29 2 47
2	S	All Souls—24TH SUNDAY AFTER TRINITY	6 56	4 30	3	3 8 3 28
3	M	Michaelmas Term begins—Sir Samuel Romilly d. 1818	6 56	4 29	4	3 50 4 10
4	Tu	William III. landed at Torbay, 1688—Lord Tenterden died 1832	7 0	4 27	5	4 33 4 56
5	W	The Gunpowder Plot discovered, 1605	7 2	4 25	6	5 21 5 46
6	Th	St. Leonard, the patron of those in captivity, died, A.D. 559—Princess Charlotte died, 1817	7 4	4 23	7	6 11 6 42
7	F	The first Gazette published, 1665—Milton died, 1674	7 5	4 22	8	7 14 7 51
8	S	Halley born, 1656—Camden died, 1622	7 7	4 20	9	8 30 9 11
9	S	25TH SUNDAY AFTER TRINITY—Prince of Wales born, 1841	7 9	4 19	10	9 47 10 26
10	M	George Fox died, 1690—Martin Luther born, 1483	7 11	4 17	11	11 3 11 34
11	Tu	St. Martin, Bishop of Tours, died, A.D. 397—Half quarter day—Battle of Preston, 1715	7 12	4 15	12	— 0 2
12	W	Canute the Great died, 1036—Leibnitz died, 1716	7 14	4 14	13	0 28 0 49
13	Th	St Britius died, A.D. 444—Curran died, 1817	7 16	4 12	14	1 13 1 34
14	F	The source of the Nile discovered by Bruce, 1770	7 18	4 11	15	1 54 2 15
15	S	St. Machutus—Westminster Bridge completed, 1750—The Wellington administration resigned, 1830—Andrew Marvel born, 1620—Lord Melbourne's cabinet dismissed, 1834	7 19	4 10	16	2 34 2 51
16	S	26TH SUNDAY AFTER TRINITY—Trial of Sir Walter Raleigh, 1604—Rubens born, 1577	7 21	4 8	17	3 11 3 27
17	M	St. Hugh—Lotteries abolished, 1826—Accession of Queen Elizabeth, 1558	7 23	4 7	18	3 45 4 1
18	Tu	Cardinal Wolsey died, 1530—Sir Robert Walpole committed to the Tower, 1659	7 25	4 6	19	4 18 4 35
19	W	Hogg, the Ettrick Shepherd, died, 1836—Charles I. born, 1600—Blackfriars Bridge opened, 1766	7 26	4 4	20	4 53 5 12
20	Th	St. Edmund, king and martyr, died, A.D. 870—Cape of Good Hope first doubled, 1497—Fleet market opened, 1826	7 28	4 3	21	5 31 5 32
21	F	The Princess Royal born, 1840—The Berlin decrees issued, 1806	7 30	4 2	22	6 13 6 36
22	S	St. Cecilia, patroness of music, martyred, A.D. 225—Lord Grey's administration formed 1830	7 31	4 1	23	7 0 7 28
23	S	27TH SUNDAY AFTER TRINITY—St Clement, first Bishop of Rome—Old Martinmas day—First balloon ascent, 1782	7 33	4 0	24	7 59 8 35
24	M	Archbishop Tillotson died, 1649—John Knox died, 1572—Peace with America, 1814	7 34	3 59	25	9 11 9 45
25	Tu	St. Catherine, virgin and martyr, tortured on the wheel, A.D. 305—Michaelmas Term ends	7 36	3 58	26	10 16 10 47
26	W	The great storm of 1703 commenced—Dr. Watts died, 1748—Lord Lyttelton died, 1779	7 38	3 57	27	11 20 11 48
27	Th	The Dowager Countess of Salisbury burnt at Hatfield-house, 1835	7 39	3 56	28	— 0 13
28	F	Revolution in Poland, 1830—Goldsmith born, 1713	7 41	3 55	29	0 35 1 0
29	S	Sir Philip Sidney born, 1554	7 42	3 54	30	1 24 1 45
30	S	ADVENT SUNDAY—St. Andrew, tutelary patron of Scotland, martyred in Achaia, A.D. 79—Duke of Gloucester died, 1834	7 44	3 54	1	2 6 2 29

## THE MOON.

First Qr. 6th 6 14 A.  
Full Moon 14 0 55 M.  
Last Qr. 22 4 30 M.  
New Moon 29 11 41 M.

NOVEMBER, like the two preceding months, is derived from two Latin words when its signification in the Roman calendar rendered its derivation more appropriate. In the Saxons it was termed *Winter-month* in allusion to the winds that frequently prevail at this season. It was also called *Blot-month*, or blood month, in account of the abundance of cattle killed for the winter-store or for sacrifices.

## IN SEASON.

FISH.—Barbel, brill, carp, cod, coalfish, crabs, dace, eels, haddock, herrings, ling, lobsters, mussels, oysters, perch, pike, plaice, shrimps, skate, smelts, sole, sprats, tench, thornback, and whiting.

MEAT.—Beef, mutton, house-lamb, pork, and venison.

POULTRY, as in October. All kinds are cheapest now, when the game season commences.

GAME.—Grouse, partridges, pheasants, hares, snipes, wild fowl. VERMIN.—Broccoli, borcole, Scotch kale, carrots, celery, leeks, onions, parsnips, shallots, spinach (Winter).

FRUIT.—Prune the vine and other fruit trees. Look over all sorts of fruit in the preserving cellar.

THE FARM.—Grass land and old lays will require to be broken up either this month or next, that is to say, if there has been sufficient rain to moisten them, for if ploughed when dry, they will not give a clean well-cut furrow. Feeding cattle should now be taken from grass, if not done before, and let them be kept in well-sheltered stalls, but not too closely confined.

Things to be remembered in November.—Borough councillors elected on the 1st. Mayors and aldermen chosen on the 9th. 11th St. Martin's Day, or Martinmas, in the Church of England calendar. Popularly, this is one of the most remarkable days of the year especially in Scotland, where Whitsunday and Martinmas are the two great terms for leases and engagement of servants, the latter being that at which the occupation of farms usually commences. Formerly it was a quarterly term day in England: a payment of corn at Martinmas occurs in the Doomsday Survey. Attorneys' licenses taken out on the 16th.



NOVEMBER, 1845.

## SONNET.

THE mournful music of bleak forest trees,  
The noisy gushing of the yellow brook,  
In miniature a Tyber, and the brook  
Of Nature's leaves wide scattered—the rude breeze  
That comes not gently, as it did in Spring  
To fan the flowers with its dewy wing,  
All lead the mind to sad philosophy,  
And make it ruminate upon the change  
That is in motion quick eternally!—  
Where'er we turn—where'er our thoughts may range,  
We see some emblem of our life's decay—  
At least, upon this earth—if up we flee  
On wings of thought where spherical minstrels play,  
Immortal then we know ourselves to be!

W.

## ASTRONOMICAL OBSERVATIONS.

LATE in the night of the 13th, and early in the morning of the 14th, we shall be favoured with a large partial eclipse of the Moon. The eclipse will begin at Greenwich at 10 minutes after 11 o'clock, P.M., of the 13th; the Moon passing into the Earth's shadow, will present, at 43 minutes past 11, the appearance shown in our cut (Fig. 1). As the orbs of heaven never stand still,



the Moon, gliding along her orbit, will get more deeply immersed in the shadow of our world, till, at 49 minutes past 12, 9 parts out of 12 of her surface will be eclipsed, when the greatest point of obscuration being reached, her appearance will be that shown in our second figure. At about 2 o'clock in the morning of the 14th, the Moon passing out of the shadow, will be seen in the form of our third figure. From that time the eclipse will rapidly diminish, and at 28 minutes past 2, the fair luminary of night will recover her wonted splendour.

The Moon will be in the neighbourhood of Venus on the 3rd, and on the 6th near Saturn; she will pass above the ruddy orb of Mars on the 8th, and on the 12th, she will appear near the bright planet Jupiter.

The revolutions of the Moon and the node are as 223 to 19, so that in every 19 years the eclipses are repeated.

Bailey and others, in observing the annular eclipse of May, 1836, near the central path, observed such an optical, though peculiar protrusion in the Moon's limb on approaching and leaving the Sun, as led to the conclusion that it must have been produced by an atmosphere.

As there are 235 lunations or new Moons, in 19 years, within 1½ hour, the phenomenon recur. 12 lunations are 354 days 8 hours 48 min. and 36 sec. The hour and half is a day in 16 cycles, or 300 years.

When the new Moon is within 18° of the node, there is an eclipse of the Sun; and when the full Moon is within 12° of the node, she will pass in the Earth's shadow, and be eclipsed. According to Séjour, an eclipse of the Sun can never be annular longer than 12 min. 24 sec., nor total longer than 7 min. 58 sec., and the duration cannot exceed two hours.

The Harvest Moon arises from the varied angle of the ecliptic with the horizon, so that the Moon rises several days within nearly an hour. In 1857 there will be a striking Harvest Moon.

The enlargement of the light part of the Moon, and the enlargement in the horizon, are optical illusions—one owing to bright objects enlarging pencils of light, and the other owing to the mind placing the Moon at a greater distance—angle the same.

The Moon is 24 minutes longer in performing her orbit, when the Earth is in its perihelion than its aphelion.

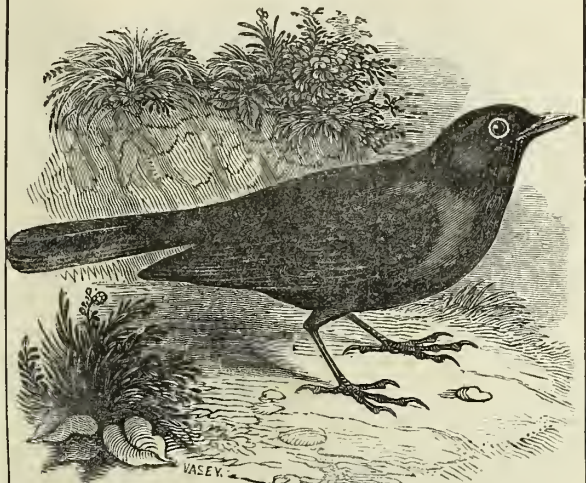
In the Earth and Moon, one of the two forces, the central, is the common progression in the Earth's orbit. The other force, the tangential, is the exact product of the Earth's reciprocating motion in its terro-lunar orbit into its mass.

Owing to the Moon's libration in latitude, we sometimes see one pole, and then the other. By the libration in longitude, more of the western limb is at times seen; and at other times more of the eastern.

The annual equation is the increase of the Moon's orbit and period when the Earth is in perihelion, and the decrease of orbit and period in aphelion.

## NOTICES ON NATURAL HISTORY, &amp;c.

NOVEMBER.



## THE BLACKBIRD

LIKE some other birds gifted with great powers of voice, the blackbird is an imitator of the sounds made by others. He has been heard to imitate closely part of the song of the nightingale; three or four instances are recorded of his crowing exactly like the common cock, apparently enjoying the sound of the responses made by the fowls of the neighbouring farm-yard, and Mr. Neville Wood, in his "British Song Birds," has mentioned an instance in which he heard a blackbird cackle as a hen does after laying.—*Yarrell*.

The males, during the first year, resemble the females so much as not easily to be distinguished from them; but after that, they assume the yellow bill, and other distinguishing marks of their kind. The blackbird is a solitary bird, frequenting woods and thickets, chiefly of evergreens, such as holly, pines, firs, &c., especially where there are perennial springs, which together afford it both shelter and subsistence. Wild blackbirds feed on berries, fruits, insects, and worms; they never fly in flocks like thrushes; they pair early, and begin to warble nearly as soon as any other songsters of the grove. The female builds her nest in bushes or low trees, and lays four or five eggs, of a bluish green colour, marked irregularly with dusky spots. The young birds are easily brought up tame, and may be taught to whistle a variety of tunes, for which their clear, loud, and melodious tones are well adapted. They are restless and timorous birds, easily alarmed, and difficult of access; but Buffon observes that they are more restless than cunning, and more timorous than suspicious, as they readily suffer themselves to be caught with bird-lime, nooses, and all sorts of snares. They are never kept in aviaries; for, when shut up with other birds, they pursue and harass their companions in slavery unceasingly, for which reason they are generally confined in cages apart. In some counties of England, this bird is called simply the ouzel.

Most of the feathered tribe are now mute; the blackcap, the chiff-chaff, and the yellow-hammer are occasionally heard. Moths and butterflies abound, and the glow-worm shines at twilight hours. The death-watch beats, and the grasshopper sings.

THIS month is commonly made the subject of unmeasured disparagement, and has applied to it epithets calculated to give that gloomy tendency to the mind which the appearances themselves do not always occasion. It cannot be denied that

The year's departing beauty hides  
Of wottry storms the sullen threat,

and that the landscape is no longer pranked in the gay attire of the summer months; but it is not difficult, when the mind is imbued with

That spirit which, undimmed by toil,  
Spreads over earth and air  
A charm—a glory—a delight—  
Making the very tempest bright,

to discover a moral beauty, by observing the fitness of means to ends which characterize all the operations of nature.

The cloud-compelling winds, which to the melancholy mind, sound, as they rush through the forest, like

Nature's sick convulsive sighs,

are the agents by which the dry and withered leaves are detached from their slight holds, and diffused over the surface of the earth. The rains and the fogs supply that moisture which is necessary to effect their decomposition, and which is greatly assisted by the warmth still retained by the earth, and obtained from the air during the change of the vapour into rain. A provision is made for the future crops by the decomposition of the remains of the former.

But verdure is never wholly absent from the earth; the fogs and general humidity of this season revive the mosses, which had been shrivelled by the droughts of summer. This pleasant renovation of mosses has been so correctly and picturesquely described by Linnaeus, that we here introduce the passage:—"When all around us becomes torpid and languid—when the rivers cease to flow, and the cheerful voices of the grove are silent—when snow covers the plains, and nought is heard but sounds of lamentation—when the face of the country is desolate, presenting only a sad image of death—then the mosses, emerging as it were from among the ruins of vegetation, and shining in silken hues, clothe the naked rocks and stones."

The leaves of mosses display a structure more beautiful than is to be observed in the foliage of the lofdest and most enduring tree of the forest; the examination of them by the microscope will open up to us a new wonder and delight.

Fews have a remarkable influence upon some birds: during a fog of twenty-four hours' continuance, thrushes, wheat-eats, ortolans, and red-breasts, are reported to become so fat that they are unable to fly from the sportsman.





# DECEMBER

## THE MOON.

First Qr. 6th 2 52 M  
Full Moon 13th 6 42 A.  
Last Qr. 21st 11 27 A.  
New Moon 28th 10 53 A.

DECEMBER is derived from the Latin words *Decem* and *ember*, although its place in the calendar is different from that originally assigned to it. By our Saxon ancestors it was styled *Winter-month*, i. e. Winter month; upon their conversion to Christianity, they named it *Helig-monath*, or Holy month. They also called it *Midwintermonath*, *Gulterra*, which means the former or first *guil*. *Guil*, now corrupted *guile*, was the feast of *Thor*, celebrated at the winter solstice, and so called from *iol* or *ol*, which signifies all.

## IN SEASON.

FISH.—Barbel, brill, carp, cod, cockles, crabs, dace, eels, haddock, herrings, ling, lobsters, mussels, pike, oysters, perch, plaice, shrimps, skate, smelts, soles, sprats, tench, whiting.

MEAT, as in November. Mutton is best from Christmas to Midsummer.

POULTRY.—Geese, turkeys, pullets, pigeons, capons, fowls, chickens, rabbits, guinea fowls.

GAME.—Woodcocks, snipe, pheasants, ducks, capons, wildfowl, partridges, grouse.

VEGETABLES.—Borecole or Scotch kale, brocoli, cardoons, celery, leek, onions, shallots, salsinella (Winter). FRUIT.—Continue to prune. Trench, dig a ditch up the soil, and in winter wear her.

W D	M D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN RISES.	SUN SETS.	M AGE	High water at Lon. Bridge, morn. & ev.	Flowers. — The
1 M	Leo X. died, 1521—Alexander of Russia died, 1825	7 45	3 53	2	2 52	3 15	vegetable kingdom affords but few charms at this season of the year, either in the fields or gardens. Plants screened from cold, and placed in sunny windows, appear beautiful.
2 Tu	Napoleon crowned, 1804—Battle of Austerlitz, 1807 St Paul's Cathedral finished, 1710—Mariners' Compass invented, 1300	7 47	3 52	3	3 37	4 0	BRIDS.—Small birds, especially of the finch tribe, creep near our dwellings for shelter and food; the little wren sings amongst the snow; and our old friend robin is musical in all weathers. Very few insects are seen.
3 W	Flaxman died, 1826—Belzoni died, 1823	7 48	3 52	4	4 25	4 49	KITCHEN GARDEN.—Celery should now be carted up, and in so careful a manner as not to require the operation again; force asparagus, also rhubarb (the Elford), and sea-kale; lay in as early as possible this month the broccolis, both purple and white; if the weather be severe, it would be judicious to cover the ridges of celery with either litter or soft meadow hay; the tops of the celery should be looked to.
4 Th	Cardinal Richelieu died, 1642—Hobbes died, 1679	7 49	3 51	5	5 13	5 39	THE FANS.—The approach of Christmas raises the demand for heef. But the article which fetches the best price in this month is what is called "house lamb." The teams during December will always be doing something, for cart horses never do less idleness.
5 F	Mozart d. 1792—Macbeth K. of Scotland killed, 1056	7 51	3 51	6	6 7	6 33	Things to be remembered in December.—Forget not the Christmas festivities, nor neglect to ascertain how affairs stand with regard to your families, your holidays, your souls.
6 S	St. Nicholas, died in Lydia, A.D. 392	7 52	3 50	7	6 59	7 30	There is the most irresistible of all innovators; but if you have built on a right foundation for eternity, you need not fear him. Those in trade who have not been accustomed to take an annual account of stock should now begin. Without cash books, and without stock-books, trade is little better than a game of chance.
7 S	2ND SUNDAY IN ADVENT—A. Sidney beheaded, 1683	7 53	3 50	8	8 2	8 38	
8 M	Conception of the B.V.M.—Mary Queen of Scots born, 1542	7 54	3 50	9	9 13	9 47	
9 Tu	Colley Cibber died, 1732—Gay died, 1732—Milton born, 1608	7 55	3 49	10	10 21	10 57	
10 W	Grouse Shooting ends—Great Panic of 1825 commenced—Charles XII. killed, 1718	7 57	3 49	11	11 31	—	
11 Th	Louis XVI. brought before the National Convention, 1792	7 58	3 49	12	0 1	0 27	
12 F	Lord Hood born, 1724—Cromwell declared Protector, 1653	7 59	3 49	13	0 51	1 13	
13 S	St. Lucy, Virgin and Martyr, died, A.D. 305—Dr. Johnson died, 1784—Lord Ellenborough died, 1818	8 03	3 49	14	1 36	1 56	
14 S	3RD SUNDAY IN ADVENT—Washington died, 1799 Isaac Walton died, 1683	8 03	3 49	15	2 16	2 37	
15 M	Earl Stanhope died, 1816	8 13	3 49	16	2 55	3 12	
16 Tu	The Gregorian Style, or Computation of Time adopted at Paris, 1582	8 23	3 49	17	3 28	3 47	
17 W	Guy, founder of the celebrated Hospital, died, 1724	8 33	3 49	18	4 3	4 20	
18 Th	General Bolivar, founder of the celebrated Bolivian Republic, died, 1830	8 43	3 49	19	4 37	4 54	
19 F	The remains of the Emperor Napoleon, after being brought from his Island Grave at St. Helena, were on this day deposited, in the Church of the Invalides at Paris with surpassing pomp and national sympathy—Dr. Darwin died, 1732—Tycho Brache born, 1566	8 43	3 50	20	5 11	5 31	
20 S	Gray born, 1716	8 53	3 51	21	5 49	6 7	
21 S	4TH SUNDAY IN ADVENT—St. Thomas, Shortest Day	8 63	3 51	22	6 27	6 48	
22 M	Holcroft born, 1744	8 63	3 51	23	7 11	7 37	
23 Tu	Abdication of James II. 1688—Antwerp surrendered, 1832	8 73	3 52	24	8 5	8 39	
24 W	Christmas Eve—Robin Hood died, 1247	8 73	3 53	25	9 14	9 49	
25 Th	Christmas Day—Nativity of our Saviour	8 73	3 53	26	10 23	10 58	
26 F	St. Stephen, the first Christian Martyr, stoned to death—Stephen of England crowned, 1135—John Wilkes died, 1797	8 83	3 54	27	11 32	—	
27 S	St. John the Evangelist died, A.D. 100	8 83	3 55	28	0 3	0 31	
28 S	1st SUNDAY AFTER CHRISTMAS—Innocent's Day, in commemoration of the massacre of the children, by command of Herod King of Judaea—Malthus the anti-Populationist died, 1834	8 83	3 56	29	0 56	1 23	
29 M	Lord Stafford beheaded, 1689—John Wycliffe d. 1384	8 83	3 56	1	1 49	2 13	
30 Tu	Order of Jesuits established, 1535—Royal Society established, 1660—Coleridge born, 1772—Flamstead died, 1710	8 83	3 57	2	2 38	3 5	
31 W	St. Silvester—Charter E. India Company granted, 1600	8 83	3 58	3	3 29	3 52	



DECEMBER, 1845.

## SONNET.

How different are the closes of each year.  
 Old Nature seems to change her garb, and dress  
 With all her child's (fair woman's) fickleness!  
 For sometimes at this season she'll appear  
 In robes of snowy whiteness—sometimes clad  
 In rainbow hues of summer morning skies,  
 Bedeck't in field and grove with thousand dyes  
 Of gaiety—and then again as sad  
 Will be her gloomy cloak and stormy train!  
 Alas! how like the closing hours of life!  
 Some Hope-led, smiling on their present pains—  
 Others, with horrors, darkly impending, rife,—  
 Some scoffing at the sun-set of their soul,\*  
 On Earth!—some running upwards to Heaven's goal!

W.

\* Vide the account of Rousseau's last hours.

## ASTRONOMICAL APPEARANCES.

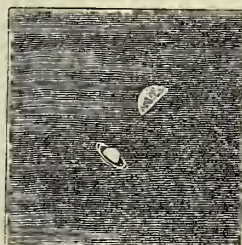
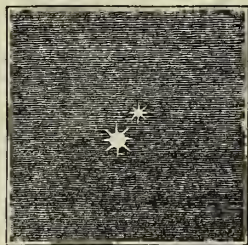
THE brilliancy of Venus will be such that, towards the end of the month, she will give sensible shadows to objects, and seem to shine like a little moon, cheering the long evenings of December, and leading us to think even Cunningham scarcely extravagant in her praise when he says—

Gom of the crimson-coloured even,  
 Companion of retiring day;  
 Why at the closing gates of heaven,  
 Beloved star, dost thou delay?  
 So fair thy pensile beauty burns  
 When soft the tear of twilight flows;  
 So due thy plighted steps returns  
 To chambers brighter than the rose.

May we not hope, also, that as the season of Christmas approaches, the brightness of our favourite star may lead us in the multitude of its tender associations to Him "who made the worlds"—"The Star of Bethlehem?"  
 Venus, seen with an ordinary telescope, will, about the 3rd week of the month have the appearance shown in our cut of a half moon.



On the 19th, Venus and Saturn will be in conjunction, when they will appear according to the annexed figure, the brighter object of course representing Venus; but through a good telescope of inverting power they will be seen as follows.



When the elongation of Venus is  $39^{\circ} 44'$  between its inferior conjunction and greatest elongation, it appears brightest; for then, though its phasis be but the 53-200ths of a circle, it is so much nearer the earth than in its superior conjunction, when it appears with a perfect disc, that the want of surface is more than compensated by intense light. In that situation, Venus is often seen by the unassisted eye in broad day-light. When Venus is to the west of the sun, it rises before the sun, and is called a morning star, this appearance continuing about 290 days together.—When it is to the east of the sun it sets after, and is called an evening star, for about the same period of 290 days.

There will be no transit of Venus till December 8, 1874; and no other till 2004.

Thirteen periods of Venus is nearly equal to 8 of the earth, and they return to similar positions in 239 years.

The plane of Saturn's rings is that of his equator, a further proof that the ring is an effect of centrifugal force. If the earth's rotation was such that parts flew off in tangents, they would be likely, at a given distance, to produce the regular form of a ring.

## NOTICES ON NATURAL HISTORY, &amp;c.

DECEMBER.



## THE REDBREAST.

THE red-breast, sacred to the household gods,  
 Wisely regardful of th' embroiling sky,  
 In joyless fields and thorny thickets leaves  
 His shivering mates, and pays to trusted man  
 His annual visit. Half afraid, he first  
 Against the window heats; then brisk alights  
 On the warm hearth; then, hopping o'er the floor,  
 Eyes all the smiling family askance,  
 And pecks, and starts, and wonders where he is;  
 Till, more familiar grown, the table crumbs  
 Attract his slender feet.

THOMSON.

ALTHOUGH the redbreast never quits this island, it performs a partial migration. As soon as the business of incubation is over, and the young are sufficiently grown to provide for themselves, he leaves his retirement, and again draws near the habitations of mankind: his well-known familiarity has attracted the attention and secured the protection of man in all ages; he haunts the dwelling of the cottager, and partakes of his humble fare: when the cold grows severe, and snow covers the ground, he approaches the house, taps at the window with his bill, as if to entreat an asylum, which is always cheerfully granted, and with a simplicity the most delightful, hops round the house, picks up crumbs, and seems to make himself one of the family.

The young redbreast, when full feathered, may be taken for a different bird, being spotted all over with rust-coloured spots on a light ground; the first appearance of the red is about the end of August, but it does not attain its full colour till the end of the following month. Redbreasts are never seen in flocks, but always singly, and when all other birds associate together they still retain their solitary habits.

THE same circumstances exist throughout this month as the former, but the changes are less rapid; for while the humidity is greater, the warmth is less, and therefore the process of decomposition goes on more slowly. In more northern climes the cold now begins to be severely felt, and a greater number of birds, mostly aquatic, and chiefly of a large size, such as the wild swan and laughing-goose, pay us a brief visit.

Our old friend robin is musical in all weathers; the little wren sings amongst the soow; and birds of the finch tribe creep near our dwellings for shelter and food, all tending to enliven the cheerless scene.

The intense cold of January, and still less the moderate cold of December, cannot prevent the laurustinus from unfolding its white and enduring blossoms, which contrast strongly with the red and shining berries of the prickly holly. The pine trees still retain their sombre needle-like leaves, which attract our attention when the gayer and gaudier foliage of the other forest trees has mouldered into dust. The mind now eagerly rests upon every thing which gives proof of prolonged existence, and which continues to assert the supremacy of nature over the destructive agents now at work. This is a season of the year when the short days preclude our spending much time in the open air and in the active observation of nature; but we would not have it supposed that, even at this time, when universal nature seems to sink into a death-like slumber, the naturalist is incapable of detecting proofs that she still retains the principle of life; of this the numerous mosses, lichens, and even fungi, are sufficient evidence.

Vegetation is arrested when the heat is too little to prevent the crystallization of the fluids, and keep up the circulations. Great summer heats confer strength on trees, to enable them to bear frosts; and long tap roots, which descend into depths of warm earths, old trees, whose layers protect the pith, and fluids mixed with resins stand the cold of winter best. But snow and ice being bad conductors of cold, when the ground is covered with snow, or the surface of the soil frozen, the roots or hulls of plants beneath are protected by the congealed water from the influence of the atmosphere, and this water becomes the first nourishment of the plant in early spring. The expansion of water during its congelation, at which time its volume increases one-twelfth, and its contraction in bulk during a thaw, tend to pulverize the soil, to separate its parts from each other, and to make it more permeable to the influence of the air.

Circumstances and customs induce all now to take a retrospective glance at the year which is past; and we cannot but hope that they who have learnt to look upon nature with the eye of an affectionate child, will have found in each month, as it passed, something to excite their wonder and admiration. Feelings of a more exalted kind should be excited by a recollection of the numerous blessings they have enjoyed, each suited to the revolving season, and the thoughts raised with increased fervour, in grateful acknowledgment to Him from whom they flowed—"the Giver of every good and perfect gift."



# THE TIME BALL, ROYAL OBSERVATORY, GREENWICH.

THE keeping of true time is important to all persons; but to those engaged in navigating the "trackless seas," it is of such consequence, that the government, since the time of Flainstee'd, the first Astronomer Royal, have not hesitat-d to expend large sums of money for its discovery, preservation, and announcement to the world. The business is now concentrat'ed in the Royal Observatory at Greenwich, where, from the beauty of the iustruments,

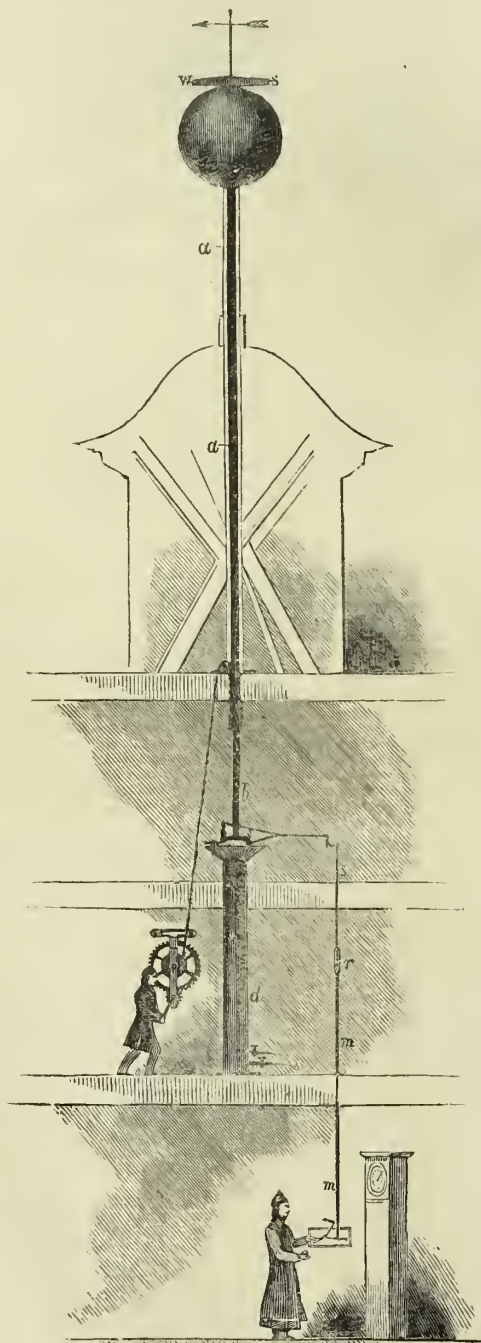


FIG. 1

the exactitude of the doservations, and the high scientific ability of the officers engaged, the once difficult problem of finding the precise instant when *one o'clock* touches the world's history, is no longer a matter of doubt or difficulty.

The present establishment at the Observatory, was brought into operation about 6-n years ago, when the resolution of the Lords of the Admiralty to publish the mean solar time at Greenwich, once in every day of the year, at

one o'clock P.M. was first observed, and where the practice, without a single intermission, or the most trifling inaccuracy, has been continued ever since.

The sidereal time is ascertained from regular observations of the transits of certain stars over the meridian, whose places have been carefully determined; and from these, the proper data are obtained for finding the mean solar time.

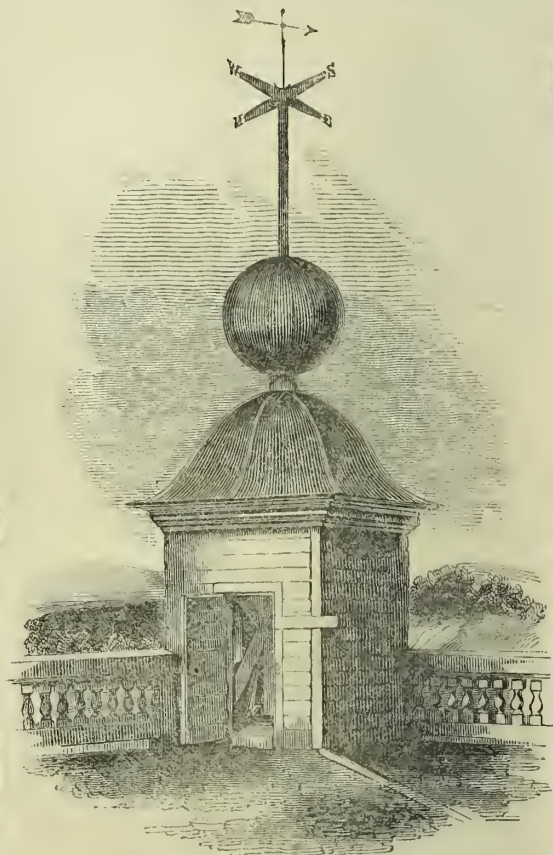


FIG. 2.

To go into the minutia of these operations would be beyond our province; we shall therefore confine ourselves, as far as matters of detail are concerned

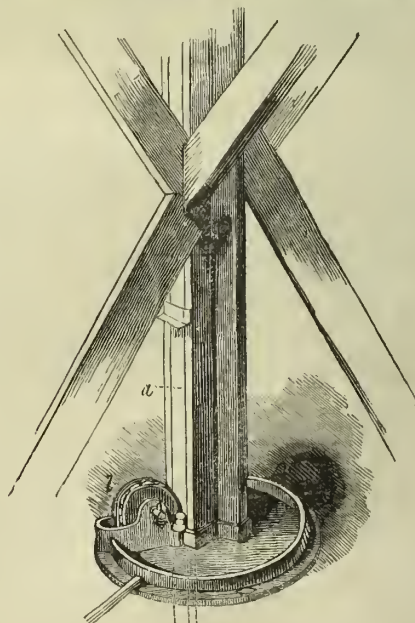


FIG. 3.

to a description of the apparatus by which the regular publication of the time is effected.



The hour of one o'clock is announced by the descent of a large black hall, from the summit of a pole, which surmounts the north-western turret of the Observatory; a position singularly favourable for its exhibition to mariners on their progress down the adjacent river Thames. The apparatus, described in the simplest terms, may be said to consist of a hoist for raising the ball, a trigger and discharging gear for its liberation, and a clock, regulated by observation, for giving the required moment of time. The cuts will make the mechanical arrangements intelligible. Fig. 1. exhibits an upright plan

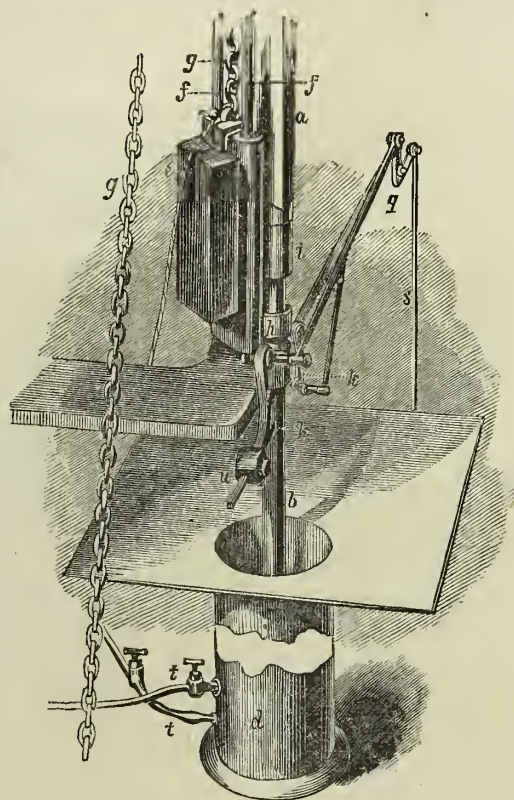


FIG. 1.

of the first, second, and third floors, on which the apparatus is placed, and a section of the turrets which carries the hall *a*, the supporting shaft bearing the ball on its top and terminating below, at *b*, in a piston, which works in an air cylinder, *d*, and by which the too sudden descent of the ball is prevented. *m*, *r*, *s*, a combination of rods and levers connected with the discharging trigger.

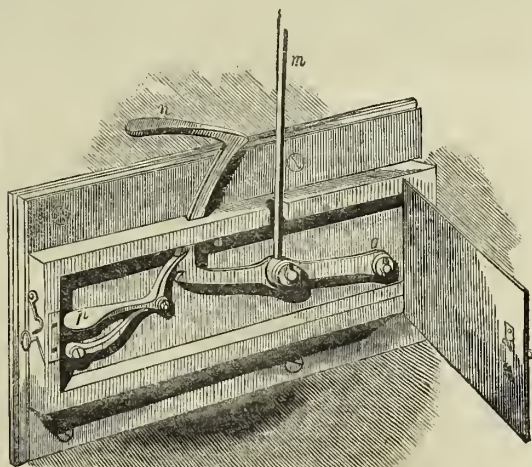


FIG. 2.

Fig. 2. The Ball Turret, viewed from the top of the Observatory, with the hall down.

Fig. 3. Apparatus in the Turret-house. *a*, the triangular supporting shaft; *b*, the pulley over which passes the chain for raising the ball.

Fig. 4. Apparatus of the second and third floors. *a*, triangular supporting shaft; *b*, piston rod; *d*, cylinder; *e*, a weight, having a collar *h*, which when raised by the chain *g*, elevates the supporting shaft; *f*, *f*, iron guiding

rods; *k*, catches for fixing the piston, when the hall has been hoisted to the top of the pole; *s*, rod, by which the piston is set free from the grasp of the catches; *t*, *t*, cocks for regulating the discharge of air in the cylinder.

Fig. 5. The discharging trigger, placed in the first floor of the 'Time-hall' apartments. *m*, iron discharging rod; *n*, trigger; *o*, axis of the trigger; *p*, spring for holding the trigger till the hall is dropped.

Fig. 6. Windlass placed in the second floor, for "winding up," or raising the hall.

Before elevating the hall at 5 minutes to 1, a signal is made of the intention to do so, by raising it "half mast high." Observers should then get their chronometers ready, and as the descent of the hall occupies several seconds, they should confine their attention to the moment when the ball leaves the top, as it is that, only, which indicates the hour.

The uses of this practice are, as we have already hinted, both various and important. We have only to mention, that observations on the drop of the

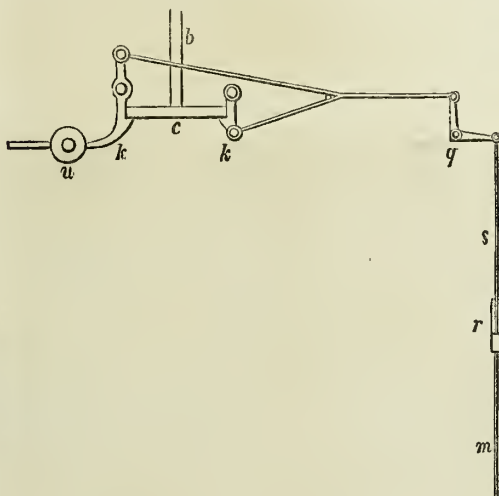


FIG. 4.

ball, repeated day after day, will give not only the error of clocks, &c., but also their daily rate. Thus, if your clock shows 1h. 3m. 5s. at the dropping of the ball, you will be assured that your clock is in error 3m. 5s. being that amount before Greenwich mean solar time. Again, if at the dropping of the ball your clock shows 56s. 55m. past 12, your clock will be also in error 3m. 5s. but it will that amount after Greenwich mean solar time.

If on a certain day you have noticed your clock to show 1h. 3m. 5s. at the dropping of the ball, and the day after to show 1h. 3m. 7s. then you will know that your clock has gained 2 seconds in 24 hours. But, if instead of 1h. 3m. 7s. your clock should show 1h. 3m. 3s., then it will have lost 2 seconds in the 24 hours.

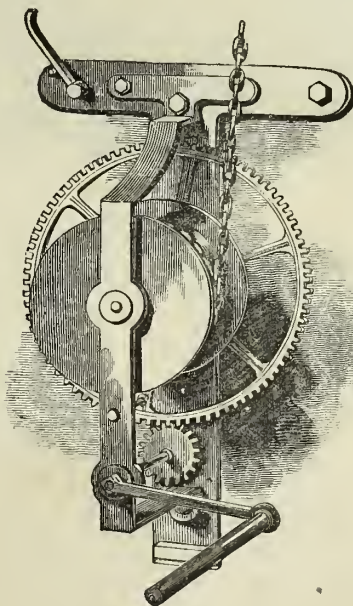


FIG. 6.

The mean time at Greenwich being known, the mean time at other places may be ascertained, when the longitudes are known. Thus, the longitude of Portsmouth is 4m. 24s. in time, west of Greenwich, consequently, when it is one o'clock at Greenwich, it will then want 4m. 24s. to one at Portsmouth. The longitude of Cambridge is 23½s. east, therefore at the moment of one o'clock at Greenwich the time at Cambridge will be 1h. 0m. 23½s.



## NEW COMETS.

THE two Comets, of which illustrations are annexed, have appeared during the past year.

A beautiful comet has recently appeared in our northern heavens, but whether it be a new one—that is, one that has previously escaped the observation of astronomers—can only be determined by further observations on its orbit. It has passed  $\epsilon$  Bootis,  $\mu$  Corona Borealis, and on the night of July 23, when our drawing was made, it was not far from  $\mu$  Bootis. Its daily change in R. A. =  $-1^m.30s.$ ; ditto in N. E. D. =  $+44m.$  In its course towards the sun, it rapidly approached the earth, a circumstance which caused timid and visionary people some alarm. The fever of apprehension was not, however, so great as that which disturbed the Parisian population in 1773, when a similar phenomenon occurred. On that occasion, many persons are said to have died of fright; while numbers prepared for the worst by purchasing—what were offered at high premiums—places in paradise. To relieve the fear of such a catastrophe, we may inform the public of the result of some very curious and elaborate calculations made by Arago to show the extremely small probability of a contact between ourselves and any comet whatever. "Let us suppose," says that great man, "a comet, of which we only know that at its perihelion it is nearer the sun than we are, and that its diameter is one-fourth of that of the earth, the calculation of probabilities shows that of 281,000,000 of chances, there is only one unfavourable, there exists but one which can produce a collision between the two

bodies. As for the *nebosity*, in its most general dimensions, the unfavourable chances will be from ten to twenty in the same number of two hundred and eighty one millions. Admitting then, for a moment, that the comets which may strike the earth with their *nuclei*, would annihilate the whole human race, then the danger of death to each individual, resulting from the appearance of an *unknown* comet, would be exactly equal to the risk he would run if in an urn there was only one single white ball, of a total number of 281,000,000 balls, and that his condemnation to death would be the inevitable consequence of the white ball being produced at the first drawing."

The comet is of a bright white colour, with its tail turned from the earth. Stars of small magnitude are seen through its body. Its luminosity was so intense that it was easily detected during the bright sunsets of July.

We are indebted to the Astronomer Royal, for permitting our artist to make the drawing from which our cut is engraved.

The second "mysterious stranger" was introduced to the English public by Sir James South, who, in a letter which he received from his friend, Professor Schumacher, was informed that a comet had been discovered on the 6th of September, by Mr. Melhop, of Hamburg. Owing to unfavourable weather, Sir James South (at the Observatory, Kensington) was not able to see this comet till the evening of Sept. 15, when the clouds having cleared off for a few minutes, Sir James found it with an ordinary night-glass, without difficulty, and got an observation of it with his five-foot equatorial, by which its approximate place was, at 52 minutes past 10 o'clock, on the night of the 15th



THE NEW COMET, DISCOVERED IN JULY, 1844. DRAWN AT THE ROYAL OBSERVATORY, GREENWICH.

—right ascension, about 0 hours, 44 minutes, and 9 seconds; and its southern declination about 12 degrees and 56 minutes.

By the following positions of it, there was no difficulty in finding it on any clear night during the ensuing week:—

Comet's altitude.			Comet's Altitude.		
Hour.	Deg.	Bearing.	Hour.	Deg.	Bearing.
Monday 9	7	S.E. b E.	Thursday 9	8	S.E. b E.
10	14	S.E.	10	16	S.E.
11	20	S.E. b S.	11	21	S.E. b S.
12	24	S. b E.	12	25	S.S.E.
1	25	S.	1	27	S.
2	24	S.S.W.	2	26	S. b W.
3	21	S.W. b S.	3	52	S.W. b S.
4	15	S.W.	4	16	S.W.

We lost no time in endeavouring to procure a correct drawing of the comet's appearance, but owing to the continuance of cloudy and hazy weather, we were not able till late on Thursday night to get a view of sufficient clearness for the purpose. At that time, favoured by the assistance of Sir James South, and the use of his powerful instruments, we succeeded in getting the sight from which the accompanying cut has been engraved. The comet appeared to be composed of a brilliant, well-defined nucleus, four or five seconds diameter, and a broad luminous tail of about two degrees in length.

Upon the extraordinary Cometary appearance in the spring of 1843, we find the following observations in Professor Nichol's *Contemplations on the Solar System*:

"Early in the recent year, 1843, an object appeared in the Heavens that must have astonished many worlds besides ours. Situated in the region below the constellation Orion, it had the appearance of a long auroral streak, visible immediately after sunset, and evidently pursuing a course through our system. Unfavourable weather concealed it from me until the 25th of March, when it presented the dim and strange appearance I have shown in the frontispiece. The beginning or head of this streak, although never observed here, was often seen in southerly latitudes, where it appeared like a very small star with an enormous misty envelope; behind

which that immense tail streamed through the sky. There is no reason to believe that this nucleus was in reality a star, but only a denser portion of the nebulous substance of which the whole object was composed; for with other apparitions of the same kind, whose brighter parts looked like a star, the application of a very small telescopic power has always been enough to dissipate the illusion, and to resolve what seemed their solid region into a thin vapour.

This extraordinary visitor was measured, and the nature of its path detected; and certainly the results of these inquiries caused us to look on it with still greater wonder. The diameter or breadth of its nucleus was rather more than a hundred thousand miles; and the tail streaming from it, which in some parts was thirty times as broad, stretched through the celestial spaces to the enormous distance of one hundred and seventy millions of miles, or about the whole size of the orbit of the Earth. Nor were its motions less singular. Unlike any globe connected with the Sun, it did not move in a continuous curve, which, like the circle or ellipse, re-enters into itself, and thus constitutes, to the body that has adopted it, a fixed, however eccentric home: but spying our luminary afar off, as it lay amid those outer abysses, it approached along the arm of a hyperbola; rushed across the orderly orbits of our system into closest neighbourhood with the Sun, being at that time apart from him only by a seventh part of our distance from the Moon; and, defying his attraction, by force of its own enormous velocity, which then was nothing less, in one part of its mass, than one-third of the velocity of light, it entered on the other divergent arm of its course, and sped towards new immensities.

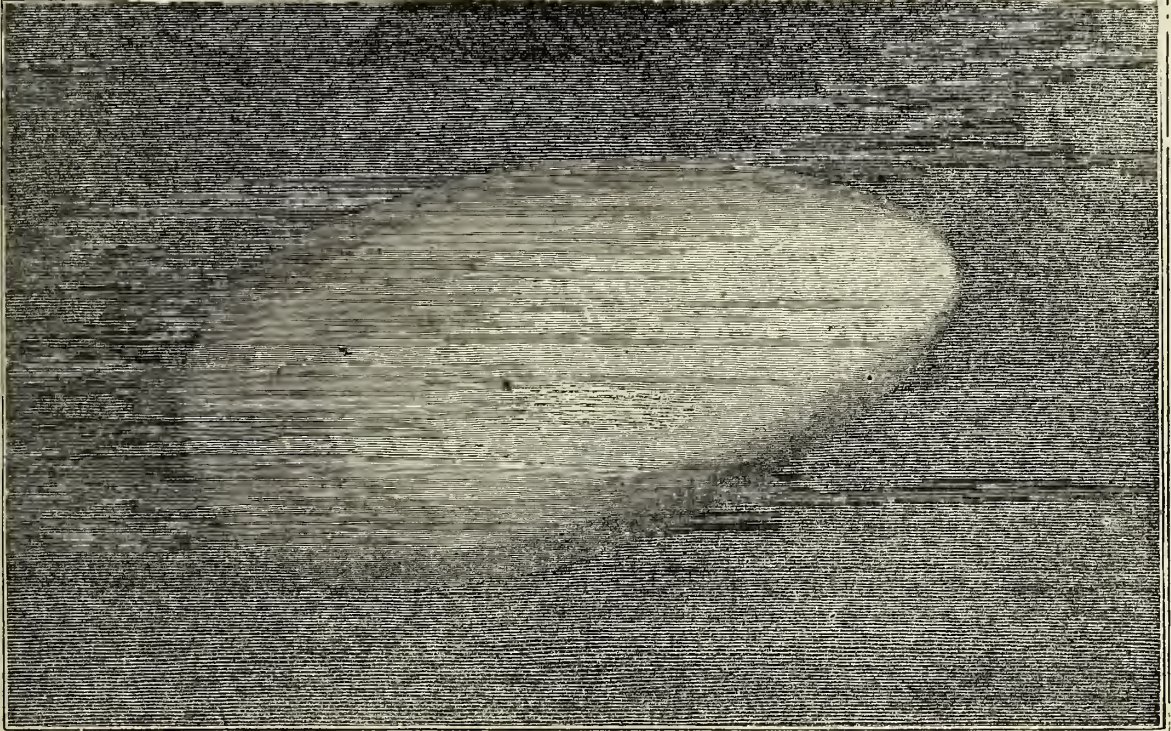
"It was when retiring that this unexpected visitant was seen for a brief period in Europe. In the course of its approach, it must have passed between us and the Sun, causing a Cometic eclipse, and, in so far, an interception of his heating rays; but that occurred during our night.

"And now, what is to be made of this extraordinary apparition? what is its nature? what its relations to our system? and what new revelation does it bring concerning the structure of the Universe? Its relations with our system appear to have been few and transitory; and in this it resembles the probable millions of such masses, that have, since observation began, crossed the



planetary orbits towards the Sun, and after bending round him, gone in pursuit of some other fixed star. No more than three are known to belong, properly speaking, to the scheme dependent on our luminary—Encke's, Biela's, and Halley's; but though these do revolve around him in fixed periods, the circumstance must be regarded in the light of an accident, their orbits being wholly unlike any other, and having little assurance of stability; for as they cross the planetary paths, every one of them may yet undergo the fate of Lexell's, which, by the action of Jupiter, was first twisted from its diverging orbit into a comparatively short ellipse; and then, after making two consecutive revolutions around the Sun, so that it might have begun to deem itself a denizen, was, by the same planet, twisted back again, and sent off, never to revisit us, away to the chill abysses! Strange objects, with

homes so undefined—flying from star to star—twisting and winding through tortuous courses, until, perhaps, no depth of that Infinite has been untraversed! What, then, is it your destiny to tell us? To what new page of that infinite book are you an index? We missed, indeed, only very narrowly, an opportunity of information, which might have been not the most convenient; for the Earth escaped being involved in the huge tail of our recent visitor, merely by being *fourteen days behind it*. For one, I should have had no apprehension, even in that case, of the realisation of geological romances, viz., of our Equator being turned to the Pole, and the Pole to the Equator—the Ocean, meanwhile, leaping from its ancient bed. But if that mist, thin though it was, had, with its next to inconceivable swiftness, brushed across our globe, certainly strange tumults must have occurred in the atmosphere; and pro-



THE NEW COMET DISCOVERED IN SEPTEMBER, 1844.

bably no agreeable modification of the breathing medium of organic beings. Right, certainly, to be most curious about comets; but prudent, withal, to inquire concerning them, from a greater distance than that: although one night in November, 1837, I cannot be persuaded that the Earth did not venture on a similar, but comparatively small experiment. It was when our globe passed from the peaceful vacant spaces into that mysterious meteor region. The sky became inflamed and red as blood; coruscations, like Auroras, darted across it; not as usual, streaming from one district, but shifting constantly, and sweeping the whole Heavens."

Nichol observes that "these hazy bodies, now and then reaching our system, and leaving it without ever operating an appreciable effect, are not spectral and isolated monstra! As all things have a home in nature, they too doubtless hold relations with some grand external scheme of matter in a state of similar modification: and since, when influenced by the sun's attraction, they approach us from all quarters of the heavens, the nebulousities in which they have their root, must lie around us on every side, and be profusely scattered among the intervals of the stars. What an error to fancy these comets anomalies! They demonstrate that, which, as we have seen, is required to make a large and varied series of phenomena explicable. They are, in fact, absolutely indispensable; for without them the conjectural disclosures of the telescope would scarcely be established. And in accomplishing this service, they have also vindicated their own position; so that we have at once two of our best imitations that knowledge is advancing,—remote phenomena appear in closest relationship, and objects and occurrences formerly deemed insignificant, assume a place as constituents of the compact fabric of the Universe."

An eminent lyric poet has penned the following

## HYMN

ON THE OCCASION OF THE ABOVE ASTRONOMICAL VISITATION.

How beautiful is all this visible world!  
How glorious in its actions and itself!—BYRON'S *Manfred*.

If there be aught throughout the pearly deep  
Of Heaven's unfathomable ocean wide,  
That doth affect man's soul  
With wonder and delight  
Beyond the rest of vast creation's wealth  
'Tis THOU, mysterious star!

Thou comest whence no mortal seer can know—  
Thou goest whither nothing human dreams—

Thy mission, tho' so bright  
Is Speculation's gloom!  
We can but gaze upon the starry dust\*  
Thy lightning wheels up turn.

Along Heaven's road, and call thee charioteer,  
Or names which prove that man cannot baptize  
Such giant births as thou  
With aught descriptive term!  
Comet, or fiery star, or feeding light  
To myriad viewless suns,  
Which trim their lamps at the renewing fount!  
Or art thou some watch-angel on his rounds,  
To see if drowsy guards  
Neglect the camp of Heaven,  
And leave an outpost for the Fiend to pass  
As once of old he did?

Thou mayst be, Light incomprehensible!  
A moral messenger enjoin'd to check  
Our mind's poor vanity,  
That doth imagine all  
The secrets of the Omnipotent are found!—  
We can't unravel THEE!

Roll on, thou child of wedded time and space,  
Eccentric offspring of eternal power,—  
Be thy portent to us  
Or good or ill, the same—  
We'll pay thee symbol worship for thy cause,  
And in submission bow.

Com'st thou in anger, we will not repine—  
Com'st thou in harmless beauty, we'll adore,  
And through thee bless the ONE  
Who by his simple word  
Can call creations like to thine from nought,  
And end them all again!—

Beautiful—lustrous as the heavens can be  
On vernal nights with their commission'd stars,  
How much more do they seem,  
When unaccustom'd lights,  
Like thine shoot forth from out the sapphire throne  
Whereon the GREAT ONE sits!—W.

\* An epithet of Plato's bestowed upon the *Via Lactea*.



# THE ILLUSTRATED LONDON ALMANACK.

## SOVEREIGNS AND POPULATION OF THE PRINCIPAL STATES OF EUROPE.

States	Population.	Sovereigns.	Birth.	Accession.
Austria	3545241	Ferdinand I., Emp.	April 19, 1793	March 2, 1835
Baden	1264482	Leopold, Grand Duke	Aug. 29, 1790	March 30, 1830
Bavaria	4315469	Louis, King	Aug. 25, 1786	Oct. 13, 1825
Belgium	4317939	Leopold I., King	Dec. 16, 1790	July 21, 1831
Denmark	2096237	Frederick VII., King	Sep. 18, 1786	Dec. 3, 1839
France	3354908	Louis Philippe, King	Oct. 6, 1773	Aug. 9, 1830
Gt. Britain & Ireland	25410429	VICTORIA, Queen	May 24, 1819	June 20, 1837
Greece	810000	Otho I., King	June 1, 1815	Feb. 6, 1833
Hanover	1706280	Ernest Augustus, Kg.	June 5, 1771	June 20, 1837
Holland	2662489	William II., King	Dec. 6, 1792	Oct. 7, 1840
Portugal	3224474	Maria II., Queen	April 4, 1819	May 2, 1826
Prussia	14098125	Frederick W. IV., Kg.	Nov. 15, 1795	June 7, 1840
Russia	51244716	Nicholas I., Emperor	July 6, 1796	Dec. 1, 1825
Sardinia	4500000	Charles Albert, King	Aug. 16, 1800	April 27, 1831
Saxony	1652114	Fred. Augustus, King	May 18, 1797	June 6, 1836
Spain	12286941	Isabella II., Queen	Oct. 10, 1830	Sep. 29, 1833
States of the Church	2732436	Gregory XVI., Pope	Sep. 18, 1765	Feb. 2, 1831
Norway and Sweden	4156900	Oscar, King		
Switzerland	2181096	C. F. Tschanner Landammann		1841
Turkey	9000000	Abdul Medjid, Sultan	April 20, 1823	July 1, 1839
Tuscany	1436758	Leopold II., Gd. Duke	Oct. 3, 1797	June 18, 1824
Two Sicilies	7949174	Ferdinand II., King	Jan. 12, 1810	Nov. 8, 1830
Wurtemberg	1699287	William I., King	Sep. 27, 1781	Oct. 30, 1816

United States of America:—Population in 1830, 12,866,920. President, John Tyler, installed April 6, 1841.

## HER MAJESTY'S MINISTERS.

### OF THE CABINET.

First Lord of the Treasury (Premier)	.. Sir Robert Peel.
Lord Chancellor	.. Lord Lyndhurst.
Commander-in-Chief	.. Duke of Wellington.
Chancellor of the Exchequer	.. Right Hon. H. Goulburn.
Lord President of the Council	.. Lord Wharncliffe.
Lord Privy Seal	.. Duke of Buccleuch.
Secretaries of State.	Home .. Rt. Hon. Sir J. R. G. Graham, Bart.
	Foreign .. Earl of Aberdeen
	Colonial .. Lord Stanley.
First Lord of the Admiralty	.. Earl of Haddington.
President of the Board of Control	.. Earl of Ripon.
President of the Board of Trade	.. Right Hon. W. E. Gladstone
Chancellor of the Duchy of Lancaster	.. Lord George Somerset
Paymaster-General	.. Right Hon. Sir E. Knatchbull, Bart.

### NOT OF THE CABINET.

Postmaster-General	.. Earl Lonsdale
Secretary at War	.. Sir T. Fremantle
Woods and Forests	.. Earl of Lincoln
Master-General of the Ordnance	.. Sir G. Murray
Vice-President of the Board of Trade	.. W. E. Gladstone
and Master of the Mint	..
Secretary of the Admiralty	.. Hon. Sidney Herbert
Joint Secretaries of Treasury	.. Hon. G. Clerk, Bart., J. Young, Esq.
Secretaries of Board of Control	.. Hon. W. Baring, J. Emerson Tennent
Home Under-Secretary	.. Hon. C. M. Sutton
Foreign Under-Secretary	.. Viscount Canning
Colonial Under-Secretary	.. G. W. Hope
Lords of the Treasury	.. Alexander Pringle, H. B. Baring, Lord A. Lennox, J. M. Gaskell
Lords of the Admiralty	.. Sir G. Cockburn, Vice-Admiral Sir W. Gage, Rear-Adm. Bowles, Hon. Capt. Gordon, Hon. H. T. L. Corry
Storekeeper of the Ordnance	.. F. R. Bonham
Clerk of the Ordnance	.. Capt. Bolero
Surveyor-General of the Ordnance	.. Colonel Jonathan Peel
Attorney-General	.. Sir W. Follett
Solicitor-General	.. Sir F. Thesiger
Judge-Advocate	.. Dr. Nicholl
Governor-General of Canada	.. Sir C. Metcalfe
Lord Advocate of Scotland	.. Right Hon. D. McNeill

### IRELAND

Lord Lieutenant	.. Lord Heytesbury
Lord High Chancellor	.. Sir Edward Sugden
Chief Secretary	.. Lord Eliot
Attorney-General	.. Right Hon. T. B. Smith
Solicitor-General	.. Adam Anderson, Esq.

### THE QUEEN'S HOUSEHOLD.

Lord Chamberlain	.. Earl Delawarr.
Lord Steward	.. Earl of Liverpool.
Master of the Horse	.. Earl Jersey
Master of Buck-hounds	.. Earl Ros-lyn.
Captain of the Yeomen of the Guard	.. Earl Beverly.
Captain of Gentlemen Pensioners	.. Lord Forester.
Vice-Chamberlain	.. Lord E. Bruce.
Treasurer of the Household	.. Earl Jermyn.
Comptroller of the Household	.. Hon. G. L. Dalmer.
Lords in Waiting: Earl of Hardwicke, Lord Rivers, Lord Hawarden, Lord Byron, Earl of Warwick, Viscount Sydney, Earl of Morton, Marquis of Ormonde.	Ladies of Bedchamber: Countess Dummure, Countess of Mount Edgecumbe, Marchioness of Douro, Viscountess Canning, Lady Portman, Countess of Charlemont.
Mistress of Robes: Ds. of Buccleuch.	

### PRINCE ALBERT'S HOUSEHOLD.

Groom of the Stole	.. Marquis of Exeter.
Treasurer and Private Secretary	.. Geo. Edward Anson, Esq.
Lords of Bedchamber	.. Lord G. Lennox and Admiral Lord Colville.
Equerries	.. Lieut-Col. Bouverie, Lieut-Col. Wyld, Major-Gen. Sir Edward Bowater.
Grooms of Bedchamber	.. Gen. Sir Geo. Anson, Capt. Francis Seymour.
Clerk Marshal	.. Major-Gen. Sir W. Wemyss
Physicians	.. Sir James Clark, Dr. Holland, Dr. Forbes
Surgeons	.. Sir Benjamin Brodie, Bart., Benjamin Travers, Esq., Charles Aston Key, Esq.
Surgeon Dentist	.. Alex. Nasmyth, Esq.
Chemist and Druggist	.. Peter Squire, Esq.

### STYLE OF ADDRESSING THE SEVERAL ORDERS OF NOBILITY BY LETTER.

BLOOD ROYAL	.. Commencement—Sir Superscription—To His Royal Highness the Duke of—
ARCHBISHOP	.. Commencement—My Lord Superscription—To His Grace the Archbishop of—
DUKE	.. Commencement—My Lord Duke Superscription—To His Grace the Duke of—
MARQUIS	.. Commencement—My Lord Marquis Superscription—To His Grace the Marquis of—
EARL	.. Commencement—My Lord Superscription—To the *Rt. Hon. the Earl of—
VISCOUNT	.. Commencement—My Lord Superscription—To the *Rt. Hon. Lord Viscount—
BISHOP	.. Commencement—My Lord Superscription—To the Rt. Rev. the Lord Bishop of—
BARON	.. Commencement—My Lord Superscription—To the *Rt. Hon. Lord—

\* The title "Right Honourable" does not strictly belong to Earls, Viscounts, or Barons, unless they be Privy Councillors.

## MONARCHS OF ENGLAND SINCE THE CONQUEST.

	No.	Monarchs.	Began to Reign.	To whom Married.	When Married.	Reigned Years.
House of Normans.	1	William I.	1066	Matilda of Flanders.	1053	21
	2	William II.	1087	Never Married.		13
	3	Henry I.	1100	Matilda of Scotland.	1100	35
House of Plantagenet Race.	4	Stephen.	1135	Matilda of Boulogne.	1134	19
	5	Henry II.	1154	Eleanor of Guienne.	1151	34
	6	Richard I.	1189	Berenguela of Navarre.	1191	10
	7	John.	1199	Earl Montague's daughter.	1185	17
				Avisa, of Gloucester.	1189	—
				Isabella of Angouleme.	1200	—
	8	Henry III.	1216	Eleanor of Provence.	1236	56
	9	Edward I.	1272	Eleanor of Castile.	1253	35
House of Lancaster.				Mary of France.	1299	—
	10	Edward II.	1307	Isabella of France.	1308	19
	11	Edward III.	1327	Philippa of Hainault.	1328	50
	12	Richard II.	1377	Ann of Luxemburg.	1382	22
House of York.				Isabella of France.	1396	—
	13	Henry IV.	1399	Mary Bohun.	1317	13
				Joanna of Navarre.	1403	—
House of Lancaster.	14	Henry V.	1413	Catharine of France.	1420	10
	15	Henry VI.	1422	Margaret of Anjou	1444	38
House of York.	16	Edward IV.	1461	Elizabeth Woodville.	1465	22
	17	Edward V.	1483	Never married.		—
	18	Richard III.	1483	Ann Nevil.	1471	2
House of Tudor.	19	Henry VII.	1485	Elizabeth of York.	1486	23
	20	Henry VIII.	1509	Catharine of Arragon.	1509	37
				A. Boleyn 31, J. Seymour.	1536	—
				Ann of Cleves, C. Howard, Catharine Parr	1540	—
House of Stuart.	21	Edward VI.	1547	Died young.		6
	22	Mary I.	1553	Philip, King of Spain.	1554	5
	23	Elizabeth.	1558	Never married.		44
House of Stuart.	24	James I.	1603	Ann of Denmark.	1589	22
	25	Charles I.	1625	Henrietta of France.	1625	24
	26	Charles II.	1649	Catharine of Portugal.	1662	36
	27	James II.	1685	A. Hyde, 1660, Mary Mod.	1673	4
House of Brunswick.	28	William & Mary	1689	Mary, daughter of James II.	1683	13
	29	Anne.	1702	George, Prince of Denmark.	1683	12
House of Brunswick.	30	George I.	1714	Sophia of Zell.	1681	13
	31	George II.	1727	Wilhelmina of Anspach.	1706	33
	32	George III.	1760	Charlotte of Meck. Strelitz.	1761	60
	33	George IV.	1820	Caroline of Brunswick.	1795	10
	34	William IV.	1830	Adelaide of Saxe Meim.	1818	6

## PRESENT ROYAL FAMILY OF GREAT BRITAIN.

QUEEN VICTORIA (only child of Edward, Duke of Kent, who was born November 2, 1767, and died January 23, 1820), b. May 24, 1819, suc. June 20, 1837, m. February 10, 1840, Francis Albert Augustus Charles Emanuel, Duke of Saxe, Prince of Coburg and Gotha, b. August 26, 1819. Issue, Victoria Adelaide Mary Louisa, Princess Royal, b. November 21, 1840; Prince of Wales, b. November 9th, 1841; Princess Alice, b. April 25th, 1843; Duke of York, b. August 6, 1844.

Dowager-Queen Adelaide, b. August 13, 1792.

King of Hanover b. June 6, 1771  
Duke of Cambridge Feb. 24, 1774  
Duchess of Gloucester April 23, 1776  
Princess Sophia Nov. 3, 1777  
Princess Sophia Matilda May 23, 1773  
Duchess of Kent Aug. 17, 1786

Duchess of Cambridge b. August 13, 1792  
Crown Pr. of Hanover May 27, 1817  
Pr. Geo. of Cambridge Mar. 26, 1819  
Princess Augusta of Cambridge July 18, 1822  
Prs. Mary of Cambridge Nov. 27, 1833





## JANUARY.

## CURLING MATCH.

Our northern brethren have a fine athletic game, peculiar to the country, called *curling*—a word strange to southern ear, at least in connection with a manly sport. Winter is the season for enjoying the exercise, and when the Scottish lakes are frozen over, *curling* becomes the order of the day. Our engraving will at once explain the character of the game; but although the means are simple—requiring no expensive horses, well-kept hounds, valuable yachts, preserved manors, or other costly adjuncts—yet for sturdy exercise and high excitement, *curling* is not excelled by any of the more exclusive enjoyments. Whilst the skill and dexterity of the player are tested to the utmost, the very progress of the sport tends to increase the sum of that strength and activity which it calls into play; and health and pleasant recreation go hand in hand together in stately companionship.

## ANGLING.

Fishing with the artificial fly is the most scientific mode of angling, requiring great tact and practice to make the flies neatly, and to use them with success. The learner cannot do better than go out with an old hand, and imitate his movements. It would extend far beyond the space we can afford in this almanack to enter into detail, but refer the reader to "Blair's Encyclopædia of Rural Sports." Fly-fishing with either the natural or artificial flies does not commence till about the end of April. Bottom fishing may be practised all the year round with varied success. In this month, chub, pike, and roach, are the only fish that can be taken; the middle of the day is the most seasonable time, provided the water is tolerably clear, and free from ice. Pike may be caught by spinning, and at this season the best bait for chub or roach is bullock's brains, pith, or greaves.

On a day when it may be freezing, the water from the line will cause the large rings to fill with ice; the easiest plan to get rid of this is to put the ring into your mouth, and afterwards keep the line on the move to prevent it from freezing.

When a Jack takes the bait, on no account give him the least check: where trees are growing in the water, it is a famous harbour. When fishing where trees are in the water, put the point of the rod under water; as it will allow him generally to go clear, you will feel by his discontinuing to take the line out; when he stops, keep the line tight; and should he wait for a few minutes only, instead of the required time ten minutes, do not let him have more line.

## HINTS FOR ANGLERS.

It is generally understood that when two or three persons are angling in the same stream, there shall be a distance of thirty yards between them.

If the learner wish to become a complete angler, he must use fine tackle; as the skill and care which such tackle requires will soon make him a master of the art.

When the tackle breaks, the angler must not repine at the accident, but do his best to remedy it, by speedily repairing the damage, and resuming his sport.

Avoid sitting on the grass.

Prefer angling at mill-tails, and in deep water, under overhanging banks, and by the entrance of small streams.

Let your line (with the plummet) remain in the water to stretch while you ground-bait.

Choose a mild cloudy day with little wind or fine rain, with the water just coloured.

A number of fine shot is to be preferred to a few large ones.

The Thames, at Richmond, Hampton, Twickenham, Shepperton; the Mole; the Brent; the New River; the Ravensbourne, at Lewisham; Dagenham Reach; Pond on Hampstead-heath; Pond on Clapham-common; Pond in Hornsey-wood; Pond at Wanstead; Regent's canal; Croydon canal; and Camberwell canal.

January presents many amusements to sportsmen. Stag and fox-hunting are in the ascendant; and coursing, if not frosty, is in full spirit: while partridges, woodcocks, snipe, and pheasants, are all fair game for those who can handle a fowling-piece. If the weather be "fair and frosty," the lover of out-door exercises may indulge in the healthful and exhilarating amusement of skating.

## IN-DOOR AMUSEMENTS.

January is one of the most festive months of the year. Its calendarial festivities are New Year's Day and Twelfth Night.

Although the custom of presenting New Year's gifts is now but little observed in this country, the day is observed by many a mirthful party.

There is not a more rational mode of amusing a party than by optical exhibitions, such as the Magic Lantern, Phantasmagoria, &c. The following is, however, a more novel amusement:—

The *Thaumatrope*, or *Wonder-Turner*, is an exceedingly amusing toy, of very simple construction and pleasing effect. It is made in the following manner:—Cut out a piece of card-board of circular form, and fix it to six pieces of string, three on each side. Paint on one side of the card a bird, and on the other a cage; being careful to draw them upside down to each other, otherwise the desired effect will not be produced. When showing the toy, take hold of the centre strings between the forefinger and thumb of each hand, close to the card, and twist or twirl the card rapidly round; when lo! the bird will appear snugly ensconced in its cage. The principle on which this pleasing toy acts, is, that the image of any object received on the retina or optic nerve, which is at the back of the eye, is retained in the mind for about eight seconds after the object causing the impression is withdrawn; consequently, the impression of the painting on one side of the card is not obliterated ere the painting on the other side is brought before the eye; it therefore follows that both sides are seen at once. The subjects suited to the *Thaumatrope* are very varied: amongst others, the following are well calculated for display: a juggler throwing up two balls may be drawn on one side of a card, and two balls only on the other, and according to the pairs of strings employed, he will seem to toss two, three, or four balls; the body and legs of a man on one side, and his head and arms on the other; a candle and its flame; a mouse and a trap, and a horse and his rider; this last is a very good one, as by using the different pairs of strings, the relative positions of man and horse may be varied most singularly.

Twelfth Night, though comparatively but little observed, occasions the assembling of many cheerful circles. Drawing for King and Queen may be amusing enough; but we have seen an ingenious attempt to turn the custom to better account by substituting for the usual grotesque Twelfth Night representations, portraits of the leading characters of Shakspeare's plays, each having beneath it a quotation from the "part." This is a graceful combination of amusement and high intellect.



## FOREIGN AMBASSADORS AND CONSULS IN ENGLAND.

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*Consul*, Colonel Thomas Aspinwall, 1, Bishopsgate Churchyard.  
*Agent for the Legation*, Mr. J. Miller, 26, Henrietta-street, Covent-garden.

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*Consul General*, Lionel N. de Rothschild, Newcourt, St. Swin's-lane.

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*Vice Consul in London*, Antonio da Costa, 148, Fenchurch-street.

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*Consul General*, Adolphus Frederick Schaezler, Esq.

## BADEN.

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*Consul*, John Simson.

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*Consul*, H. Castellain.

## BUENOS AYRES.

*Consular Office*, 1, Winchester-buildings, Old Broad-street.  
*Minister Plenipotentiary*, Don Manuel Moreno, Sablonniere Hotel, Leicester-square.  
*Consul General*, G. F. Dickson, 20, Hanover-terrace, Regent's Park.

## DENMARK.

*Chargé d'Affaires*, Count H. de Bille Brahe, 43, Cadogan-place, Sloane-street.  
*Consul General*, Fletcher Wilson, 6, Warrford-court, Throgmorton-street.

## FRANCE.

*Consular Office*, 3, Copthall-buildings, Throgmorton-street.  
*Ambassador Extraordinary and Minister Plenipotentiary*, His Excellency Count St. Aulaire.

*Consul-General*, Durant St. André, 44, Montague-square.

## FRANKFORT-ON-THAINE.

*Consulate Office*, 12, Broad-street-buildings.  
*Consul*, John George Behrends.

## GREECE.

*Consulate Office*, 25, Finsbury-circus.  
*Envoy Extraordinary and Minister Plenipotentiary*, A. Mavrocordato, 4, Hyde-park-place West.  
*Consul General*, Pandia Ralli, 25, Finsbury-circus.

## HANOVER.

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*Minister*, Count Kielmannsegge, 41, Grosvenor-place.  
*Consul General*, Sir J. Hall, K.C.H., St. Katharine's Dock-house.

## MEXICO.

*Consulate Office*, 26, Austin Friars, Broad-street.  
*Minister and Envoy Extraordinary*, T. Murphy, 7, Sussex-place, Regent's Park.

## NETHERLANDS.

*Envoy Extraordinary and Minister Plenipotentiary*, M. Dedel, 25, Wilton-orecent.  
*Consul General*, J. W. May, 123, Fenchurch-street.

## NEW GRENADA.

*Consulate Office*, 46, Lime-street, Lendenhall-street.  
*Chargé d'Affaires*, M. M. Mosquera, 1, Dorset-place, Dorset-square.  
*Consul General*, W. Logan.

## OLDENBURGH.

*Consulate Office*, 43, Fenchurch-street.  
*Consul General*, H. F. Tiarks.

## PERSIA.

*Minister*, Khan Hussim. Letters to be addressed, care of Mr. Harbottle, 157, Fenchurch-street.

## PORTUGAL.

*Consular Office*, 15, St. Mary Axe.  
*Envoy Extraordinary*, Baron da Torre, de Moncorvo, 57, Upper Scymour-street.  
*Consul General*, F. I. van Zeller, 40, Dorset-square.

## PRUSSIA.

*Consulate Office*, 106, Fenchurch-street.  
*Envoy Extraordinary and Minister Plenipotentiary*, Chevalier Bunsen.  
*Consul General for Great Britain and Ireland*, Chevalier B. Hebel, K.R.E., 15, York-place, Baker-street.

## RUSSIA.

*Consulate Office*, 2, Winchester-buildings, Old Broad-street.  
*Ambassador Extraordinary and Plenipotentiary*, Baron de Brunow, Ashburnham-house, Dover-street, Piccadilly.  
*Consul General*, H. E. the Chevalier George de Benkhhausen.

## SARDINIA.

*Consulate Office*, 31, Old Jewry.  
*Minister*, H. E. the Count de Pollon, 11, Lower Grosvenor-street.  
*Consul General*, J. B. Heath, 66, Russell-square.

## SAXONY.

*Consulate Office*, 76, Cornhill.  
*Resident Minister*, Baron de Gersdorff, 130, Piccadilly.  
*Consul General*, James Colquhoun, 12, St. James's place.

## SICILY.

*Consulate Office*, 15, Cambridge-street, Connaught-square.  
*Ambassador Extraordinary*, Prince de Castelica, Clarendon Hotel, Boud-street.  
*Consul General*, Henry Swenburne Minasi.

## SPAIN.

*Envoy Extraordinary and Minister Plenipotentiary*, General Sancho, 31, Upper Harley-street.  
*Consulate*, 37, Old Broad-street.  
*Consul General*, Chevalier Don Jose Maria Barriero.

## SWEDEN AND NORWAY.

*Consulate Office*, 2, Crosby-square.  
*Envoy Extraordinary and Minister Plenipotentiary*, Count de Bjornsterna, 66, Mount-street.  
*Consul General*, Charles Todt, Esq., 52, Montague-square.

## SWITZERLAND.

*Consul Office*, a, 24, Cateaton street, Lollbury.  
*Agent and Consul General*, J. L. Prevost.

## TURKEY.

*Ambassador Extraordinary*, His Excellency All Effendi.  
*Consulate Office*, 28, Great Winchester-street, City.  
*Consul General*, Edward Zohrab, Esq., 1, Bryanstone-square.

## TUSCANY.

*Consulate Office*, 15, Angel-court, Throgmorton street.  
*Consul*, James Christian Clement Bell.

## WURTEMBERG.

*Consul General*, Bernard Hebelter.

## THE GOVERNORS AND DIRECTORS OF THE BANK OF ENGLAND.

WILLIAM COTTON, Esq., *Governor*.  
 JOHN BENJ. HEATH, Esq., *Deputy Governor*, } Re-elected April 13, 1844.

## DIRECTORS ELECTED APRIL 14, 1844.

Chapman, Edward Henry, Esq.  
 Campbell, Arthur Edward, Esq.  
 Dobree, Bonamy, Esq.  
 Gower, Abel Lewes, Esq.  
 Hankey, Thompson, jun., Esq.  
 Hanson, John Oliver, Esq.

Hodgson, Kirkman Daniel, Esq.  
 Holland, Henry Lancelot, Esq.  
 Hunt, Thomas Newman, Esq.  
 Huth, Charles Frederick, Esq.  
 Latham, Alfred, Esq.  
 Mildmay, Humphrey St. John, Esq.

Morris, James, Esq.  
 Neave, Sheffield, Esq.  
 Norman, George Varde, Esq.  
 Palmer, John Horsley, Esq.  
 Pattison, James, Esq.  
 Pelly, Sir John Henry, Bart.

Pearse, Christopher, Esq.  
 Prescott, Henry James, Esq.  
 Reid, Sir John Isaac, Bart.  
 Robinson, William R., Esq.  
 Thompson, William, Esq. & Ald.  
 Tooke, Thomas, jun., Esq.

*Secretary*, John Knight; *Dep. Sec.*, John Watts; *Assistant*, John Bentley; *Chief Accountant*, William Smea; *Deputy*, George Earle Gray; *Assistant*, J. P. Noble; *Chief Cashier*, Matthew Marshall; *First Assistant*, J. R. Elsey; *Second Assistant*, Thomas Bros.

## THE BANK OF ENGLAND HAS BRANCH ESTABLISHMENTS IN THE FOLLOWING TOWNS.

Birmingham—Bristol—Gloucester—Hull—Leeds—Liverpool—Manchester—Newcastle-upon-Tyne—Norwich—Plymouth—Portsmouth—Swansea.

## LONDON BANKERS.

Ames, Prescott, Grote, & Co., 62, Threadneedle-st.  
 Bank of England, Threadneedle-st.  
 Barclay, Bevan, and Tritton, 54, Lombard-st.  
 Barnard, Dimsdale, Barnard & Co., 59, Cornhill.  
 Barnett, Hoare, & Co., 62, Lombard-st.  
 Bosanquet, Anderson, Franks, & Co., 73, Lombard-st.  
 Bouverie, Norman, & Murdoch, 11 Haymarket.  
 Brown, Janson, & Co., 32, Abchurch-lane.  
 Call, Sir W. P., Marten, & Co., 25, Old Bond-st.  
 Child & Co., 1, Fleet-st., Temple Bar.  
 Cocks, Biddulph, & Co., 43, Claring-cross.  
 Cockburn & Co., 4, Whitehall.  
 Champion & Co., 11, West Smithfield.  
 Coutts & Co., 59, Strand.  
 Cunliffe, Brooks, & Co., 29, Lombard-st.  
 Curries & Co., 29, Cornhill.  
 De Lisle Janvyn & Co., 16, Devonshire-square, Bishopsgate.  
 Denison, J., Heywood, & Co., Lombard-st.  
 Dixons, Brooks, & Dixon, 25, Chancery-lane.  
 Drewett & Fowler, 4, Princes-st., Bank.  
 Drummonds & Co., 49, Charing-cross.  
 Feltham, John, & Co., 42, Lombard-st.  
 Fullers & Co., 63, Moorgate-st.  
 Glyn, Sir R. Carr, Bt., & Co., 67, Lombard-st.

Goslings & Sharpe, 19, Fleet-st.  
 Hanburys, Taylor, & Lloyd, 60, Lombard-st.  
 Hankeys & Co., 7, Fenchurch-st.  
 Herries, Farquhar, & Co., 16, St. James's-st.  
 Hill & Sons, 17, West Smithfield.  
 Hoares, 37, Fleet-st.  
 Hopkison, Barton, & Co., 3, Regent-st., Waterloo-place.  
 Jones, Lloyd, & Co., 43, Lothbury.  
 Jones & Son, 41, West Smithfield.  
 Kinloch, G. F., & Sons, 1, New Broad-st.  
 Lubbock, Sir J. W., & Co., 11, Mansion-house-st.  
 Masterman, Peters, & Co., 35, Nicholas-lane.  
 Praed, Fane, Praed, & Johnson, 189, Fleet-st.  
 Price, Sir C., Bt., & Co., King William-st.  
 Pocklington & Lacy, 60, West Smithfield.  
 Puget, Bainbridge, & Co., 12, St. Paul's.  
 Ransom & Co., Pall-mall East.  
 Roberts, Curtis, & Co., 15, Lombard-st.  
 Rogers, Olding, & Co., 29, Clements-lane.  
 Scott, Sir C., Bt., & Co., 1, Cavendish-sq.  
 Smith, Payne, & Co., King William-st.  
 Strachan, Pauls, & Bates, 217, Strand.  
 Spooner, Attwood, & Co., 27, Gracechurch-st.  
 Stevenson, Salt, & Sons, 20, Lombard-st.  
 Stone, Martin, & Stones, 63, Lombard-st.

Stride & Sons, 6, Copthall-court.  
 Twining, Rich., G., J. A., & Nich., 215, Strand.  
 Vere, Sapse, Banbury, & Co., 77, Lombard-st.  
 Weston & Young, Wellington-st., Borough.  
 Williams, Deacon, & Co., 20, Birchin-lane.  
 Willis, Percival, & Co., 76, Lombard-st.  
 Ireland, Provincial Bank of, 42, Old Broad-st.  
 Ireland, National Bank of, 13, Old Broad-st.  
 London Joint Stock Bank, Princes-st., Bank, and 69, Pall Mall.  
 London and Westminster, Lothbury, 9, Waterloo-place, 213, High Holborn, 3, Wellington-st., Borough, 87, High-st., Whitechapel, Stratford-place.  
 National Provincial Bank of England, 119, Bishopsgate-st., Within.  
 London & County Banking Company, 71, Lombard-st.  
 Commercial Bank of London, 3, Moorgate-st., and 5, & 6, Henrietta-st., Covent-garden.  
 Union Bank of London, 8, Moorgate-st., Argyll place, Regent-st., and Pall Mall, East.





## FEBRUARY.

## HARE-HUNTING.

This sport is now seldom seen in its primitive shape; time and manners have not failed to act upon hare-hunting as they are wont to do upon all things; indeed, the latest changes, by introducing the dwarf fox-hound, have quickened the sport and taken from it, as a subject of illustration, its main characteristic, by banishing the "blue-mottled harrier." This "newest fashion" we eschew, and give hare-hunting as it should be given—such as it was when Somerville sung, and such as it yet is in some sylvan corners of Old England—a whit slower perhaps, but not less hearty, healthful, or exhilarating, than the rattling system of a later day. The dwarf fox-hound, with its superior pace, possesses very fine qualities of nose, but cannot in the latter respect surpass its predecessor; while the "blue-mottled harrier" gives at a glance, to a true sportsman's eye, the peculiar character of the scene which our sketch of hare-hunting seeks to portray.

How inferior soever may be the estimation in which hunting the hare is held in comparison with hunting the fox, no animal of the chase affords so much true hunting as she does. The *Country Squire*, in his *Essay on Hunting*, says: "The chase after the fox or stag is violent, and little more than riding or running; but the hare displays the very art of hunting; she affords a pleasure worthy of the philosopher, a curiosity that may justly raise the admiration of the wisest statesman, physician, or divine. I, therefore, hope for pardon from my more sprightly brethren, if I give my vote for the innocent hare above all other game." The modern *Nimrod* says: "For our own part, speaking as fox-hunters, yet abandoning all prejudices against a sport it is too much the fashion to hold cheap, we consider, that, to any man who is a real lover of hunting, that is, of seeing hounds do their work, and that work well, a twenty minutes' burst over a good country, with a well-bred pack of harriers, of the present stamp and fashion, affords a high treat."

While upon this subject, we record with regret, the death of Hylton Jolliffe, a true sportsman of the good old school—one whose presence has given life and spirit to many a well-run chase. Mr. Jolliffe was one of the oldest members of the House of Commons, having represented the borough of Petersfield more than forty years; and in this character no less than as a soldier and a sportsman, his

memory deserves the compliment we pay it, by the publication of his portrait. He entered the army early in life, holding a commission in the Duke of York's regiment when little more than sixteen years of age. In the course of the war with Republican France he was frequently engaged in active service; and in the memorable campaign in Egypt, which terminated with the victory of Alexandria, Colonel Jolliffe commanded a battalion of the Coldstream Guards on the decisive day, the 21st of March. On his marriage with the heiress of the Earl of Ferrers, he quitted the profession of a soldier, and directed his attention chiefly to those pursuits which constitute the avocations of a country gentleman. His hours of amusement were devoted to the sports of the field, in which he attained such celebrity as to have acquired the designation of "the hero of the chase." Descended from a family of very high antiquity, some of his estates in the north of England have been continued in uninterrupted succession, in one branch of his family, for more than a thousand years. A claim to revive a cherished hereditary title, long in abeyance, was at one period favourably entertained by the ministers of the day; but as it was considered invidious or injudicious to restore so ancient a barony, George III. expressed his sentiments as preferably disposed to a new creation; but this not being in accordance with the views of the father of the deceased gentleman, the idea was never realised. When pressed by the late Earl of Liverpool to accept a baronetcy, the suggestion appeared to Mr. Jolliffe to convey something so much like an insult, that he is reported to have made the following sarcastic reply to the minister: "Your proposal, my lord, if acceded to, would only enable me to do by patent what I already practise as a gentleman—namely, walk out of a room after the very numerous tribe who have recently been elected as fit subjects for such a dignity!"



PORTRAIT OF HYLTON JOLLIFFE, ESQ.

Toward the latter end of this month, when the weather becomes somewhat mild, carp, gudgeons, and minnows may be taken, as well as pike, chub, and roach. The perch spawns either in this or the next month. The same as last month will answer.

During the progress of this month, sports with the gun begin to decline. The whole tribe of wild fowl fly the approach of spring, and seek a colder climate more congenial to their habits. The partridge and pheasant season is over.



## LORDS LIEUTENANT, &amp;c., OF THE SEVERAL COUNTIES IN GREAT BRITAIN AND IRELAND.

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Berks, Earl of Abingdon  
Bucks, Lord Carrington  
Cambridge, Earl of Hardwicke  
Chester, Earl of Stamford and Warrington  
Cornwall, Sir W. Trevelyan

— Lord Warden, H. R. H.

Prince Albert  
Cumberland, Earl of Lonsdale  
Derby, Duke of Devonshire  
Devon, Earl Fortescue  
Dorset, Earl Digby  
Durham, Marquis of Londonderry  
Essex, Viscount Maynard  
Gloucester, Earl Fitzhardinge  
Hereford, Lord Bateman  
Hertford, Earl of Verulam  
Huntingdon, Earl of Sandwich  
Kent, Earl Thanet  
Lancashire, Earl of Derby  
Leicester, Duke of Rutland  
Lincoln, Earl Brownlow  
Middlesex, Marquis of Salisbury  
Monmouth, C. H. Leigh, Esq.  
Norfolk, Lord Wodehouse  
Northampton, Marquis of Exeter  
Northumberland, Duke of Northumberland  
Nottingham, Earl of Scarborough  
Oxford, Duke of Marlborough  
Rutland, Marquis of Exeter  
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Suffolk, Duke of Grafton  
Surrey, Earl of Lovelace  
Sussex, Duke of Richmond  
Tower Hamlets, Duke of Wellington  
Warwick, Earl Brooke & of Warwick  
Westmoreland, Earl of Lonsdale  
Wilts, Marquis of Lansdowne  
Worcester, Lord Lyttelton  
York, East Riding, Lord Wenlock  
— West Riding, Lord Wharfedale  
— North Riding, Earl of Zetland

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Cardigan, W. E. Powell, Esq., M.P.  
Carmarthen, Lord Dynevor  
Carnarvon, Lt. Willoughby d'Eresby  
Denbigh, Middleton Biddulph Esq.  
Flint, Marquis of Westminster  
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Merioneth, E. L. Mostyn, Esq.  
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Radnor, Lord Rodney

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Argyll, Marquis of Eredaldane  
Ayr, Earl of Eglintoun

Banff, Earl of Fife  
Berwick, Earl of Lauderdale  
Bute, Marquis of Bute  
Caithness, Earl of Caithness  
Clackmannan, Hon. G. R. Abercromby  
Cromarty, R. Macleod, Esq.  
Dunbarton, Sir J. Colquhoun, Bart.  
Dumfries, Marquis of Queensberry  
Edinburgh, Duke of Buccleuch  
Elgin, Earl of Moray  
Fife, Capt. J. Erskine Wemyss, R.N.  
Forfar, Earl of Airlie  
Haddington, Marquis of Tweeddale  
Inverness, Earl of Seafield  
Kincairdine, Viscount Arbutnot  
Kinross, Vice-Admiral Sir C. Adam  
Kircudbright, Earl of Galloway  
Lanark, Duke of Hamilton  
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MARCH.

## WILD DUCK SHOOTING.

THE different methods of taking the wild duck afford capital sport and never-ending adventure. "Common wild fowl shooting with a shoulder duck gun," observes Captain Lacy in the "Modern Shooter," "has long been in vogue, and has often been the theme of ancient sporting authors; but, until Colonel Hawker's work appeared, wild fowl shooting on salt-water had scarcely been touched upon; still less had any one of 'gentle blood' ventured to commit his valuable case to 'the vasty deep,' in case so fragile as that yeapt a shooting punt. The merit, therefore, of having invented this new pleasure, or, at least, of having added it to the stock of sporting recreations, attaches exclusively to the gallant colonel. As a practical performer, he is most successful, and is, perhaps, the very best wild fowl shot round the British coast. Hail, Hawker! Mao Adam of duck shooters, hail!" The colonel's well-known book contains the modes of hut shooting, &c., and some particulars relating to decoys.

The usual weight of the mallard or drake is about 24 lbs., and that of the duck somewhat less; but the foreigners are generally larger than the home-breds. Captain Lacy has shot wild ducks in the Tees Bay above six pounds and a half the pair; but, if much beyond this weight, their purity of breed may be suspected. Wild ducks, excepting a few home-breds, whose full-grown ones are fine eating in August, do not appear in the Tees Bay until November, or, at all events, in any number worth mentioning. The mallards are very poor in condition after the middle of February, not so the ducks. The captain adds: "a common trick played upon the London cockneys is to serve them out with a couple of shell ducks in lieu of wild ducks. The heads and white legs of the former having been cut off, and the birds plucked, as they are just about the size of the latter, and always look plump, they sell better, and it is thus that wild ducks are libelled for eating so 'fishy!'"

The captain enthusiastically sings:—

"If tame ducks were wanting,  
And wild ducks were flown,  
Oh! who would inhabit  
This bleak world alone!"

Colonel Hawker says: "It often happens that wild-ducks, dunbirds, and other fowl, come down at night to large rivers, ponds, or lakes, which are so deeply surrounded by floating reeds, that no one can approach the water; and the birds, aware of this, do not lower their flight till they come near them. So far from this defying the shooter, it is one of the finest opportunities that can be afforded for death and destruction. Let him sit, in a small punt, or canoe, fore and aft, among the rushes, where, towards dusk, he will be so completely hid, that he may either shoot at birds flying within pistol-shot, or wait for a good chance on the water; from whence, his boat being hid on each side, and foreshortened to the only point of view he will be pretty sure to escape the observation of the birds. This plan may be resorted to where there are no rushes, such as under the bank of an island, or in a small brook, near which there may be no hiding-place."

The fens of Lincolnshire, Cambridge, and Martin Mere in Lincolnshire, are excellent localities for duck as well as every other wild fowl shooting. This species of shooting, both of duck and flapper, can likewise be pursued in perfection on the borders of many of the rivers of North and South Wales.

The nest of the wild duck is generally made in some dry spot of the marshes, and not far from water, to which she can lead her progeny as soon as hatched. It is composed of withered grass and other dry vegetable matter, and usually concealed from view by a thick bush, or some very rank herbage, though often and very dissimilar situations are occasionally chosen, as several instances have been recorded where they have deposited their eggs on the fork of a large tree, or in some deserted nest.

The Yankets have what they call their "ducking," i. e. when they form a party to go shoot ducks on Duck Island, in Chesapeake Bay. These are the

celebrated canvas-back duck of the American gourmand, and the estimation in which they are held may be gathered from the fact that, in Baltimore market, the price of a single duck is one shilling, whilst the common wild ducks are but threepence a couple. The former has been acclimated in Britain, and why the breed has not been more extensively encouraged is somewhat surprising, as they are sizeable and handsome birds, and, as a table luxury, most delicious.

## ANGLING.

IN March, minnows, roach, chub, gudgeons, tench, carp, and trout, form the bill of fare. Bleak, pike, perch, and dace, spawn. In this and the preceding month, the middle of the day is the best for angling. The blue dun cow-dung flies make their appearance, and may be used throughout the year. The March brown fly appears about the same time, but is out of season at the end of April; it is a capital bait, and it kills most from eleven till three.

## YACHTING.

THOUGH early in the season, yachting commences on the Thames during this month. The Thames Yacht Club rendezvous at Greenwich. The first law of the Club states its object to be "the encouragement of yacht-building sailing on the river Thames." The funds of the Club, after paying necessary current expenses, are appropriated to the purchase of cups and other prizes, to be sailed for by yachts belonging to members only. Another law of the Club throws open one of the matches, to be called "the Grand Match," to all yachts eligible to sail, winners of the same season not excluded.

## STEEPLE-CHASING.

STEEPLE-CHASING or RACING is one of the sports of this month, when the St. Albans steeple-chase takes place. The ancient borough of St. Albans, at present, appears to be to steeple-chasing what Newmarket is to legitimate turf practices; how long it may retain its metropolitan importance, over this connecting link between turf and field riding, it is not easy to predict, so much do omipotence and fashion influence these matters. The benefit which this town receives from these sporting meetings, has stimulated its inhabitants to exert themselves to the utmost to provide the very best accommodation for both actors and spectators; while the liberality of the landowners cannot be too highly praised for throwing no impediment in the way. Thus, St. Albans offers its fields to bespatter the ardent riders, and its brooks to wash off the accumulated stains. Its hedges have waved under the jumpers, and its ancient town has opened its hotels to greet the conqueror and console the vanquished. Steeple-chases are also held this month at Banbury, Northampton, Burton Constable, York, Burton-upon-Trent, Bedford, Leamington, Boston, &c., &c.

English steeple-chasing appears to be rapidly gaining ground, and, in the absence of hunting, it offers one of the very best means of keeping up the wind and condition of our field-horses, and the emulative spirit of field men. Our method of conducting a steeple-chase is not fettered with so many rules and enactments as those of Ireland; nor is it marked with much other ceremony than that of previously agreeing on the stakes, marking out the ground by means of flags on eminences, within certain distances, to the right or left of which the riders are confined in their course; neither must one horse follow the track of another, nor leap the same fence within so many yards of any other rider; nor is he allowed to take his course on any lane or road, beyond a certain distance. The horses are started by a preconcerted signal, such as a bugle sound, the firing of a pistol, &c. &c.

ARCHERY MEETINGS usually commence in this month.—FOOT-BALL play is still kept up on Shrove Tuesday, in some towns, as at Derby, and Kingstou-upon-Thames.



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 London, Lieutenant Lean, R.N.  
 Liverpool, Lieutenant Henry, R.N.  
 Dublin, Lieutenant Hodder, R.N.  
 Cork, Lieutenant Friend, R.N.  
 Belfast, Lieutenant Starke, R.N.  
 Sligo, Lieut. Shuttleworth, R.N.  
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Accountant General's Office, Chancery-lane, 9 to 2, and 4 to 7; and for delivery of Drafts, 11 to 2  
 Adjutant-General's Office, Horse Guards, 11 to 5  
 Admiralty Court, College square, Doctors' Commons, 9 to 7  
 Admiralty Register Office, Paul's Bakehouse-court, Goddian-street, 10 to 3 and 4  
 Admiralty Naval Department, Whitehall, 10 to 5  
 Admiralty Civil Department, Somerset House, 10 to 4  
 Affidavit Office, 10, Symond's Inn, 10 to 4; in long vacation, 11 to 1  
 Annuity (Government) Office, 19, Old Jewry, 10 to 3  
 Apothecaries' Hall, Water-lane, Blackfriars, 9 to 8; Solicitor's Office, 1 to 3  
 Arches Registry, 20, Great Knight Rider-street, 10 to 4  
 Army Medical Board Office, 13, St. James's Place, 11 to 4  
 Army Pay Office, now called Paymaster General's Office by Act of Parliament, Whitehall, 10 to 4  
 Bankrupts' Office, 2, Quality-court, Chancery-lane, 10 to 2, and 6 to 8  
 Bankruptcy Court, 82, Bussinghall-street, 10 to 4  
 Board of Control for East India Affairs, Cannon-row, Westminster, 10 to 4  
 Board of General Officers, 6, Whitehall Yard, 10 to 4  
 Board of Green Cloth, St. James's Palace, 11 to 4  
 Board of Trade, Whitehall, 10 to 4  
 Board of Works, consolidated with Commissioners of Woods and Forests and Land Revenue by Act of Parliament, 1 and 2, Whitehall-place, 10 to 4  
 Borough Court of Southwark, St. Margaret's-hill, Monday, 9 to 4  
 Children's Employment Commission, 5, Trafalgar-square, 9 to 5  
 Church Commission, &c., and Commissioners of Charities, 13, Great George-street, Westminster  
 City Police Commissioners' Office, 26, Old Jewry, 9 to 5  
 City Solicitor's Office, Guildhall, 10 to 7  
 Commander-in-Chief's Office, Horse Guards, 10 to 5  
 Commissioners for Promoting the Fine Arts, Gwydyr House, Whitehall, 10 to 4  
 Commissioners of Police, 4, Whitehall-place, 10 to 4  
 Council Office, Whitehall, 10 to 4  
 Custom-House, Lower Thames street  
 In-door Offices 10 to 4; Waterside Offices, from 1st March to 31st Oct., 8 to 4; from 1st Nov. to 28th Feb., 9 to 4  
 Dean and Chapter of Westminster's Office, 10, Benet's hill, 9½ to 5  
 Doctors' Commons, south side of St. Paul's Churchyard  
 Duchy of Cornwall Office, Somerset House, 10 to 4  
 Duchy of Lancaster Office, Lancaster-place, Waterloo-bridge, 10 to 4  
 East India House, Leadenhall-street, 10 to 4  
 Ecclesiastical Commissioners' Office, 5, Whitehall Place, 10 to 4  
 Emigration (Government) Office, London Docks, 10 to 4  
 Exchequer Bill Loan Office, S. Sea House, 10 to 4  
 Excise Office, Broad-street, 9 to 3  
 Excise Export Office, 49, Great Tower-street, 9 to 3  
 Faculty Office, 10, Knight Rider-st., 9 to 4  
 Fen Office, 6, Sergeant's Inn, 10 to 2, Mondays, Wednesdays, and Fridays

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First Fruits' Office, Dean's Yard, Westminster, consolidated with Queen Anne's Bounty Office, 10 to 4  
 Foreign Marriage, Baptism, and Burial Office, Bishop of London's Office, 3, Goddian-street, 10 to 5  
 French Passport Office, 6, Poland st.; Passports applied for, 11 to 5; granted next day, 1 to 3  
 Gazette Office, Cannon-row, 10 to 5  
 Gazette Advert. Office, 42, Chancery-lane  
 General Register Office of Births, Deaths, and Marriages, 7 and 8, Somerset-place, 10 to 4  
 Greenwich Out-Pension Office, Tower-hill, 10 to 4  
 Hackney Carriage Office, 3, Princes-street, Storey's Gate, 10 to 4  
 Half-pay Office. See Army Pay Office  
 Harbours Master's Office, St. Katharine's Stairs, 9 to 4  
 Herald's College Office, St. Benet's hill, Doctors' Commons, 10 to 4  
 Insolvent Debtors' Court, Portugal-street, 10 to 4  
 Invalid Office, 4, Northumberland-street, Strand, 10 to 4  
 Irish Deeds Registry and Affidavit Office, 10, Southampton Buildings, 10 to 4  
 Irish Office, 18, Great Queen-street, Westminster, 11 to 5  
 Judges' Chambers, Rolls' gardens, Chancery-lane, 11 to 5 in term, and 11 to 3 in vacation, except from Aug. 10 to Oct. 24, when 11 to 2 only  
 Land Tax Register Office, Somerset House, 10 to 4  
 Legacy Duty Office, Somerset House, 10 to 4  
 Lord Chamberlain's Office, Stable-yard, St. James's, 11 to 4  
 Lord Mayor's Court Office, 7, Old Jewry, 10 to 4  
 Lunacy, Offices of Metropolitan Commissioners in Abingdon-street, 10 to 4  
 Lunatic Office, Quality-court, Chancery-lane, 10 to 4  
 Lunatic Visitors' Office, 45, Lincoln's-inn-fields, 10 to 5  
 Marshalsea and Palace Courts, Great Scotland Yard; Office, 15, Chancery-lane, ½ past 9 to 2, and 4 to 7; on Court days, ½ past 9 to 1, and 3 to 6  
 Masters in Chancery Office, 25, Southampton Buildings, 10 to 4; in vacation, 10 to 2; in long vacation, 11 to 1  
 Metropolitan Roads, North of the Thames, 22, Whitehall-place, 10 to 5  
 Metropolitan Police Office, Scotland Yard, 10 to 4  
 Ordnance Office, 86, Pall Mall, 10 to 6, and Tower, 10 to 4  
 Palace Court Office, 15, Chancery-lane, ½ past 9 to 2 and 4 to 7. On Court days, ½ past 9 to 1, and 3 to 6  
 Patent Office, 13, Serle-street, Lincoln's-inn, 10 to 4  
 Pay Office of the Army, Pay Office of the Navy—consolidated. See Army Pay Office  
 Plantation Office, Whitehall, 11 to 3  
 Police Offices, 10 to 5  
 Poor Law Commission, Somerset House, 10 to 5  
 Post Office, St. Martin's-le-Grand  
 Prerogative Court, College-square, Doctors' Commons, 10 to 4  
 Prerogative Will Office, 6, Great Knight Rider-street, 10 to 4, and 10 to 3 in winter  
 Presentation Office, 4, Old Square, Lincoln's-inn, 10 to 5  
 Prevention of Cruelty Society, 2, Pantons-street, Haymarket, 10 to 4  
 Public Record Office—Head Office,

Rolls House, Chancery-lane. Branch Offices, Rolls' Chapel, Tower, Chapter House, Poet's Corner, and Carlton Ride, 10 to 4  
 Public Office in Chancery, Southampton-buildings, 10 to 4  
 Queen Anne's Bounty Office, Dean's Yard, Westminster; Treasurer's Department, 10 to 2; Secretary's and First Fruits and Tenth's Department, 10 to 4  
 Register Office of Deeds in Middlesex, Bell Yard, Temple Bar, open daily from 10 to 3. Registrar attends 11 to 2 only  
 Registrar General's Office, 7 and 8, Somerset-place, 10 to 4  
 Registrar of Metropolitan Buildings, 3, Trafalgar-sq., Charing Cross  
 Royal Marine Office, 22, New-street, Spring Gardens, 10 to 5  
 School of Design, Somerset House  
 South Australian Colonization Commissioners, 9, Park-street, Westminster, 11 to half-past 5

Sons of the Clergy, 2, Bloomsbury-place, Bloomsbury-square  
 Stamp Office, Somerset House, 10 to 4. No money received after 3  
 State Paper Office, 12, Duke-street, Westminster, 11 to 4  
 Stock Exchange, Capel-court, Bank Tax Office, Somerset House, 10 to 4  
 Tenth's Office, consolidated with Queen Anne's Bounty Office, 10 to 2  
 Tithe Commissioners Office, 9, Somerset-place, Somerset House, 9 to 6  
 Transport Office, Somerset House, 10 to 4  
 Treasury Office, Whitehall, 10 to 4  
 Vicars General and Peculiars' Office, Bell Yard, Doctors' Commons, 9 to 7  
 Victualling Office, Somerset House, 10 to 4  
 War Office, Horse Guards, 10 to 4  
 Woods, Forests, and Land Revenues, Public Works and Buildings Office, Whitehall place, 10 to 4

### CITY OFFICERS.

#### LORD MAYOR,

Elected 9th September—Sworn in 9th November,  
 The Right Hon. Michael Gibbs, Alderman of the Ward of Walbrook, 1838  
**SHERIFFS,**  
 Elected 24th June—Sworn in 28th September.  
 Aldermen W. Hunter, and Thomas Sidney.  
**UNDER-SHERIFFS.**  
 George Marten, Esq., William H. Ashurst, Esq.

#### ALDERMEN.

*The following have not passed the Chair.*

Wood, Thomas, Esq.—Cordwainer	1835
Johnson, John, Esq.—Dowgate	1839
Carroll, Sir George, Kt.—Candlewick	1840
Hooper, John K., Esq.—Quechithe	1840
Duke, Sir James, Kt., M.P.—Farringdon Without	1840
Farncomb, Thomas, Esq.—Bassishaw	1840
Musgrove, John, Esq.—Broad-street	1842
Hunter, William, Esq.—Coleman-street	1843
H. H. Hughes, Esq.—Broad-street	1844
Challis, Thomas, Esq.—Cripplegate	1844
Sidney, Thomas, Esq.—Billingsgate	1844
Moon, F. G. Esq.—Portoken	1844

*The following have passed the Chair.*

Hunter, Sir C. S., Bart.—Bridge Without	1804
Lucas, M. P., Esq.—Tower	1821
Thompson, W., Esq., M.P.—Cheap	1821
Key, Sir John, Bart.—Langbourn	1823
Laurie, Sir P., Knt.—Aldersgate	1826
Farebrother, C., Esq.—Lime-street	1826
Copeland, W., Esq., M.P.—Bishopsgate	1829
Kelly, T., Esq.—Farringdon Within	1830
Wilson, Samuel, Esq.—Castle Baynard	1801
Marshall, Sir C., Knt.—Bridge Within	1832
Pirie, Sir John, Bart.—Cornhill	1834
Humphrey, J., Esq., M.P.—Aldgate	1835
Magnay, Sir William, Bart.—Vintry	1838

Royal Exchange opened, 28th Oct. 1844. The Lord Mayor, the Right Hon. William Magnay, created a Baronet on the occasion.

*Recorder*—Hon. C. E. Law, Q.C., M.P.

*Common Sergeant*—J. Mirehouse, Esq.  
*Remembrancer*—E. Tyrrell, Esq.  
*Comptroller*—Thos. Sumners, Esq.  
*Sword Bearer*—C. W. Hick, Esq.  
*Common Crier*—S. Boddome, Esq.  
*Water Bailiff*—N. Saunders, Esq.  
*Surveyor*—W. Mountague, Esq.  
*Clerk to Lord Mayor*—Mr. S. Goodman.  
*Clerk to Sitting Justices*—Mr. W. Payne.  
*City Marshals*—N. Browne, T. Theobalds.  
*Bridge Masters*—Messrs. J. Watson and David Gibbs.  
*Bailiff of Southwark*—Pritchard, Esq.

### COURT OF BANKRUPTCY.

CHIEF JUDGE, Vice Chancery Lord Bruce  
 CHIEF REGISTRARS, Mr. Sergeant Edward Lawes and Mr. Barber  
 COMMISSIONERS, Sir C. F. Williams, Mr. Sergeant Goulbourn, J. Evans, J. S. M. Fonblanque, K. G. C. Fane, and E. Holroyd, Esqrs.  
**BIRMINGHAM**—John Balfour, Q.C., Esq., and Robert Daniel, Esq.  
**LIVERPOOL**—Walter Skirrow, Esq., and Charles Phillips, Esq.  
**MANCHESTER**—Ebenezer Ludlow, Esq., Sergeant, and William Thomas Jemmett, Esq.  
**LEEDS**—Martin John West, Esq., and Montague Dere, Esq.  
**BRISTOL**—H. J. Stephen, Esq., Sergeant, and Richard Stevenson, Esq.  
**EXETER**—Edward Goulbourn, Esq., Sergeant.  
**NEWCASTLE**—N. Ellisou, Esq.

### INSOLVENT DEBTORS' COURT.

CHIEF COMMISSIONER, H. R. Reynolds, Esq.  
 COMMISSIONERS, J. G. Harris, Wm. J. Law, and D. Pollock, Esqrs.  
 PROVISIONAL ASSIGNEE, S. Sturges, Esq.  
 CHIEF CLERK, J. Massey, Esq.  
 TAX MASTER, H. C. Richards, Esq.  
 CLERK OF THE RULES, C. V. White, Esq.





A P R I L.

## FLY-FISHING, NEAR HADDON HALL, DERBYSHIRE.

"No man should in honesty catch a trout till the middle of March," quoth the father of anglers, quaint, philosophical old Izaak Walton; and, in obedience to their master, all true brethren of the angle have by long usage fixed the 14th of March for fly-fishing to begin. The leaf-buds now give out the first evidences of returning spring. Around the village church the jack-daw comes again—the marsh titmouse begins to raise its note; and, of all nature's signs of spring the most watched for by the trout-fisher, various flies appear. The trolling-rod now gives place to its more pliant compeer, and floats, plummetts, snaps, and gorge-hooks are supplanted by hackles and flies. All the mysteries of a fly-fisher's wallet are now displayed, with varied spoils of bird and beast lying ready to the angler's practised hand, as from their gaudy colours he contrives mimic resemblances of the insect tribes who flutter over rippling streams. And learnedly does the "Complete Angler" discuss these things, telling how to weave "the lower fur of a squirrel's tail with the wing of the grey feather of the drake—the hairs of Isabella; coloured mohair, and the wings of a bright mallard's feather"—and a hundred other such compounds for constructing "an admirable fly, and in great repute as a killer." Learned piscatorial disquisitions are indulged in, too, as to the flies best suited for each successive month; but here a golden rule presents itself. Let the angler watch the insects which hover over the stream where he seeks his sport—let him catch one and imitate its size, shape, and colour, and then he has the bait at which the fish will bite most readily. The fly-rod, says good authority, should be about twelve feet three inches long, and about fourteen ounces in weight. It must not be top-heavy, nor must it have too much play in the lower part, but the play should be just in proportion to the gradual tapering, by which there will be very little spring, till after about the third foot of its length. A rod too pliable is as bad a fault as being too stiff; and, from being too small, there is, of course, more liable to be top-heavy, which nine rods in ten are; the consequence is, they tire the hand, and do not drop the fly so neatly. Colonel Hawker has best described the proper mode of practising the art. He says, "In throwing a fly, raise the arm well up, without labouring with your body, send the fly backwards by a sudden spring of the wrist. Do not draw the fly too near, or you lose your purchase for sending it back, and therefore require an extra sweep in the air before you can get it into play again. If, after sending it back, you make the counter spring a moment too soon, you will whip off your tail-fly, and if a moment too late, your line will fall in a slovenly manner. The knack of catching this time is, therefore, the whole art of throwing well. The motion should be just sufficiently circular to avoid this; but if too circular, the spring receives too much check, and the gut will then most probably not drop before the silk line. In a word, allow the line no more time than just to unfold before you retreat the spring of the wrist; this must be done, or you will hear a crack, and find you have just whipped off your tail-fly. For this reason I should recommend beginners to learn at first with only a bob, or they will soon empty their own or their friend's fishing-book; and, at all events, to begin learning with a moderate length of line."

Thus much for the practice of fly-fishing, and now a word for our illustration of it. The angler here whips one of the best trout streams in England—the old baronial residence of the Vernons, the "Kings of the Peak," standing in picturesque stateliness upon a neighbouring eminence. The Wye flows at his feet—now all quiet and placid, floating a lucid mirror above its bright pebbly bed—anon dashing over some rocky impediment in tiny cascades, then coursing swiftly through a narrow, or streaming all impetuous down some sloping course, until again it floats placidly, as its waters expand and deepen. From its source near Buxton, through its course by Ashford, Bakewell, and Haddon, until it falls into the Derwent at Rowsley, it affords trout worthy of all the praises of old Izaak; while the scenery around is rich in variety of hill and slope and dale, with here and there rocks rising in

bold prominence, and giving that character to the landscape which renders Derbyshire one of the most interesting and picturesque of the counties of England.

## QUOITS.

THIS game is much played during April. It does not depend so much upon superior strength as upon superior skill. The quoit has evidently derived its origin from the ancient *discus*; at the present day, it is a circular plate of iron, perforated in the middle, not always of the same size, but suited to the strength and convenience of the several candidates.

To play at this game, an iron pin, called a hob, is driven into the ground, within a few inches of the top; and at the distance of eighteen, twenty, or more yards, for the distance is optional, a second pin of iron is also made fast in a similar manner, and two or more persons who are to contend for the victory, stand at one of the iron marks, and throw an equal number of quoits to the other, and those nearest to the hob are reckoned towards the game. Having cast all their quoits, the candidates walk to the opposite side, and determine the state of the play, then, taking their stand there, throw their quoits back again, and continue to do so alternately until the game is decided.

The most skilful stroke in this game is what is termed *ringing the quoit*: that is, casting it in such a manner that the hole in the middle shall fall exactly on the top of the hob.

It appears that quoits are used as implements of war by the Seikhs, an independent and martial tribe in India. Captain Mundy says, "The Seikhs have a great variety of weapons. I observed the musket, matchlock, sword, spears of sundry forms, daggers, and battle-axe; but the arm that is exclusively peculiar to this sect is the quoit: it is made of beautiful thin steel, sometimes inlaid with gold; in using it, the warrior twirls it swiftly round the fore-finger, and launches it with such deadly aim, as, according to their own account, to be sure of his man at eighty paces."

## ANGLING.

A SOCIETY has recently been formed, under the sanction of the Lord Mayor as Conservator of the Thames, for the purpose of preserving the fish of that river, by preventing the use of illegal nets, and putting a stop to other unfair practices, which have been long resorted to for their destruction. Deeps have been staked, and other plans are in progress, to secure sport for the angler. If the society be supported as it ought to be by all who delight in the healthful and tranquil amusement, the Thames will, within a short period, become as unequalled for sport and enjoyment, as for its interest and beauty.

Upon the banks of the Thames the noblest of British worthies have lived, flourished, and died. Scarcely can we stand upon a spot that is not hallowed ground; or contemplate an object unassociated with some triumph of the mind. Thus the angler, while enjoying his sport, is revelling with nature, or with memory—the present, or the past.

Who loves not his own company,  
Will feel the weight of't many a day.

COWLEY.

The increasing warmth of the weather, brings also increase of sport; with perch, pike, trout, roach, carp, gudgeons, flounders, bleak, minnows, and eels. Barbel, pike, chub, ruffe, and dace, spawn.

In April, the green tail and gravel flies come out: they are soon out of season, the former continuing not more than a week, and the latter about a fortnight. The black gnat, which continues till the end of May, and the stone fly complete this month's list.

The Aquatic Season commences; the various Yacht Clubs hold meetings and settle preliminaries for the matches of the season.



## NUMERICAL SUMMARY OF THE MEMBERS OF BOTH HOUSES OF PARLIAMENT.

LORDS.					COMMONS.				
Peers of the Royal Blood..	..	..	..	2	ENGLAND—County Members	..	..	..	143
Dukes ..	..	..	..	21	Isle of White ..	..	..	..	1
Marquises ..	..	..	..	10	Universities ..	..	..	..	4
Earls ..	..	..	..	103	Cities, Boroughs, and Cinque Ports	..	..	..	323 471
Viscounts ..	..	..	..	18	WALIS—County Members	..	..	..	15
Barons ..	..	..	..	121	Boroughs ..	..	..	..	34 29
Archbishops ..	..	..	..	2	SCOTLAND—County Members	..	..	..	30
Bishops ..	..	..	..	21	Cities and Boroughs ..	..	..	..	23 53
Scotch Representative Peers	..	..	..	16	IRELAND—County Members	..	..	..	64
Irish Peers ..	..	..	..	23	Universities ..	..	..	..	2
Irish Spiritual Peers ..	..	..	..	4 435	Cities and Boroughs ..	..	..	..	39 105
Deduct Representative Peers with English Titles	..	..	..	9					
				426					658

A TABLE OF ENGLISH WARS SINCE THE REVOLUTION IN 1688, Shewing the Sums expended during each War, and the progress of our Taxes and National Debt.

Name of War.	Our Opponents.	Our Allies.	War commenced A.D.	Years war lasted.	Ended by the Peace of	War Ended A.D.	Millions raised by Taxes. £	Millions raised by Loans.	Total of Expens. in Millions.	Average of yearly Expend. in millions.	Average of the Yearly Poor-rates.	Average of Price of Wheat per qr.
The War of the Revolution.	The French .....	The Dutch, Austrians, Prussians, Spaniards, and People of Savoy.	1688	9	Ryswick.	1697	16	20	36	4	$\frac{1}{2}$ of a million.	s. d. 44 0
The War of the Spanish Succession.	French, Spaniards ....	Dutch, Austrians, People of Savoy, Portuguese.	1702	11	Utrecht	1713	30	32 $\frac{1}{2}$	32 $\frac{1}{2}$	5 $\frac{1}{2}$	$\frac{1}{2}$ of a million.	44 6
The Spanish War, 1739, and the War of the Austrian Succession, 1741.	Spaniards, French ....	Austrians, Dutch, Russians, Sardinians, Hungarians.	1732	9	Aix-La Chapelle.	1748	25	29	54	6	$\frac{1}{2}$ of a million.	32 6
The Seven Years' War.	French, Spaniards, Austrians, Russians.	Prussians. ....	1756	7	Paris.	1763	52	60	112	16	1 million.	30 3
The American War.	Americans, French, Spaniards, Dutch.	—	1765	8	Versailles.	1783	32	104	136	17	1 $\frac{1}{2}$ millions.	48 6
The War of the French Revolution.	French, Spaniards from 1796.	Spaniards till 1795, Dutch, Prussians, Austrians, Portuguese.	1793	9	Amiens.	1802	263 $\frac{1}{2}$	200 $\frac{1}{2}$	464	51 $\frac{1}{2}$	3 $\frac{1}{2}$ millions.	78 6
The War against Napoleon Buonaparte.	French, Spaniards till 1808, Americans.	Austrians, Prussians, Russians, Spaniards from 1804, Portuguese.	1803	12	Paris.	1815	770 $\frac{1}{2}$	388 $\frac{1}{2}$	1159	96 $\frac{1}{2}$	5 $\frac{1}{2}$ millions.	92 8
				65			1189	834 $\frac{1}{2}$	2023 $\frac{1}{2}$			

## WEATHER TABLE.

IMPROVED AND ILLUSTRATED BY THE LATE REV. ADAM CLARKE, L.L.D.

THIS Table, and the accompanying Remarks, are the result of many years' actual observation; the whole being constructed on a due consideration of the attraction of the Sun and Moon in their several positions respecting the Earth; and will, by simple inspection, show the observer what kind of weather will most probably follow the entrance of the Moon into any of her Quarters, and that so near the truth, as to be seldom or never found to fail.

MOON.	TIME OF CHANGE.	IN SUMMER.	IN WINTER.
If the New Moon—the First Quarter—the Full Moon—or the Last Quarter happens.	Between Midnight and Two in the Morning	Fair	Hard Frost, unless the Wind be S. or W.
	Between 2 and 4 Morning	Cold, with frequent showers	Snow and Stormy.
	Between 4 and 6 Morning	Rain	Rain.
	Between 6 and 8 Morning	Wind and Rain	Stormy.
	Between 8 and 10 Morning	Changeable	Cold Rain, if Wind W.; Snow, if E.
	Between 10 and 12 Morning	Frequent Showers	Cold and High Wind.
	At Twelve o'clock at Noon and to Two P.M.	Very Rainy	Snow or Rain.
	Between 2 and 4 Afternoon	Changeable	Fair and Mild.
	Between 4 and 6 Afternoon	Fair	Fair.
	Between 6 and 8 Afternoon	Fair, if wind N.W., rainy, if S. or S.W.	Fair and Frosty, if Wind N. or N.E. Rain or Snow, if S. or S.W.
	Between 8 and 10 Afternoon	Ditto	Ditto.
	Between 10 and Midnight	Fair	Fair and Frosty.

1. The nearer the time of the Moon's Change, First Quarter, Full, and Last Quarter, is to Midnight, the fairer will the weather be during the seven days following.

2. The space for this calculation occupies from ten at night till two next morning.

3. The nearer to Mid-day, or Noon, these phases of the Moon happen, the more foul or wet the weather may be expected during the next seven days.

4. The space for this calculation occupies from ten in the forenoon to two in the afternoon. These observations refer principally to Summer, though they affect Spring and Autumn nearly in the same ratio.

5. The Moon's Change, First Quarter, Full, and Last Quarter, happening during six of the afternoon hours, *i. e.* from four to ten, may be followed by fair weather: but this is mostly dependent on the Wind, as it is noted in the Table.

6. Though the weather, from a variety of irregular causes, is more uncertain in the latter part of Autumn, the whole of Winter, and the beginning of Spring, yet, in the main, the above observations will apply to those periods.

## OBSERVATIONS ON THE WEATHER.

(By the late Rev. W. Jones, of Pluckley.)

**MISTS.**—A white mist in the evening, over a meadow with a river, will be drawn up by the sun next morning, and the day will be bright.—Five or six fogs successively drawn up, portend rain.—Where there are high hills, and the mist which hangs over the lower lands draws towards the hills in the morning, and rolls up to the top, it will be fair; but if the mist hangs upon the hills, and drags along the woods, there will be rain.

**CLOUDS.**—Against much rain, the clouds grow bigger and increase very fast, especially before thunder.—When the clouds are formed like fleeces, but dense in the middle, and bright toward the edges, with the sky bright, they are signs of a frost, with hail, snow, or rain.—If clouds breed high in the air, in thin white trains, like locks of wool, they portend wind, and probably rain.—When a general cloudiness covers the sky, and small black fragments of clouds fly underneath, they are a sure sign of rain, and probably it will be lasting. Two currents of clouds always portend rain.

**Dew.**—If the Dew lies plentifully on the grass after a fair day, it is a sign

of another. If not, and there is no wind, rain must follow.—A red evening portends fine weather: but if it spread too far upwards from the horizon in the evening, and especially morning, it foretels wind or rain, or both.—When the sky in rainy weather is tinged with sea green, the rain will increase; if with deep blue it will be showery.

**HEAVENLY BODIES.**—A haziness in the air which fades the sun's light, and makes the orb appear whitish or ill defined; or at night, if the moon and stars grow dim, and a ring encircles the former, rain will follow.—If the Sun's rays appear like Moses' horns, if white at setting, or shorn of his rays, or goes down into a bank of clouds in the horizon, bad weather is to be expected.—If the Moon looks pale and dim, we expect rain; if red, wind; and if of her natural colour with a clear sky, fair weather.—If the Moon is rainy throughout, it will clear at the change, and perhaps the rain return a few days after.—If fair throughout, and rain at the change the fair weather will probably return on the fourth or fifth day.

**WIND.**—If the wind veers about much, rain is pretty sure. If in changing it follows the course of the Sun, it brings fair weather; the contrary, foul. Whistling or howling of the wind is a sure sign of rain.

**METEORS.**—The Aurora Borealis, after warm days, are generally succeeded by cooler air. Shooting stars are supposed to indicate wind.

**ANIMALS.**—Before rain, swallows fly low; dogs grow sleepy and eat grass; water fowl dive much; fish will not bite; flies are more troublesome; toads crawl about; moles, ants, bees, and many insects are very busy; birds fly low for insects; swine sleep, and cattle are uneasy, and even the human body.

## Observations of Dr. Kirwan.

1. When there has been no particular storm about the time of the Spring equinox (March 21), if a storm arise from the east on or before that day; or if a storm from any point of the compass arise near a week after the equinox, then, in either of these cases, the succeeding summer is generally dry, four times in five.

2. But if a storm arise from the S.W. or W.S.W. on or just before the Spring equinox, then the Summer following is generally wet, five times in six.





M A Y.

## JACK-IN-THE-GREEN.

Now the bright morning star, day's harbinger,  
Comes dancing from the east, and leads with her  
The flow'ry May, who from her green lap throws  
The yellow cowslip and the pale primrose.  
Hail, bounteous May! that dost inspire  
Mirth and youth with warm desire,  
Woods and groves are of thy dressing;  
Hill and dale doth boast thy blessing:  
Thus we salute thee with our early song,  
And welcome thee and wish thee long!

So sings Milton to the sweet bird-moth—he whose mighty mind, "nigh spher'd in Heaven," hymned the soft beauty of the first day that dawned upon the infant world, which surely must have been a May-morning—

Sweet day, so calm, so pure, so bright,  
The bridal of the earth and sky!

The custom of welcoming in May-morning has been observed in various manners in different countries. We say "has been," for the refinements of civilization have in a great degree banished all the festival observances of our merry ancestors. But, perhaps, although Nature forgets not to bestow "her custom'd livelies on the fields and groves" at the usual time, no season has lost its poetic charm so much as the sweet May. A solitary bonfire, with a May-bush and pole are yet to be seen here and there in retired nooks and corners of Old England, to the delight of the children, "your only chronicles of merriment" now-a-days; but the games of this delightful season have nearly all vanished away from the general scene of the country. "Jack-in-the-Green," the gay scene represented in our engraving, is one of the few relics of the May festivals.

Time was when from the court to the cottage all "rose up early to observe the rite of May." Some went "a-dew-gathering," a sort of rustic love-spell that was sure to enchant every village-maiden, gentle or simple; others to "fetch in May," a rivalry that "rob'd many a bawthorn of its half-blown sweets;" while others set their wits to work to get up some pretty device, some rural drama, the purpose of which was to bring *The Ladie of the May* into a termination of her last year's coquetting between two rival suitors.

One of the additions to "The Countess of Pembroke's Arcadia," written by Sir Philip Sydney, Knight, is an account of a rural mask, or May-game, performed at Wanstead, in honour of Queen Elizabeth, which begins thus:—

"Her most excellent Majestie walking in Wanstead Garden, as she passed down into the grove there came suddenly among the train one apparelled like an honest man's wife of the countie; where crying out for justice, and desiring all the lords and gentlemen to speak a good word for her, shee was brought to the presence of her Majestie, to whom upon her knees she offered a supplication," &c.

May-poles, May-fairs, and May-games, are as old as any English sports we have on record. May-poles may still be seen in some of our villages, decorated with garlands, for young people to dance round. Formerly, the inhabitants of London used to go out early in the morning to fetch May from the neighbouring fields, and return with it in triumph. The church of St. Andrew-under-Shaft, in Leadenhall-street, is so named from a pole or shaft which used to be set up there on May-day, higher than the church-steeple; and this May-pole is mentioned by Chaucer. Another, alluded to by Beaumont and Fletcher, flourished in the Strand, nearly upon the site of the church of St. Mary-le-Strand. This May-pole was removed in 1713, and a new one erected July 4, opposite Somerset House; it had two gilt balls and a vane on the summit, and was decorated on festival days with flags and garlands. This second May-pole was taken down in 1718, when Sir Isaac Newton procured it from the inhabitants, and afterwards sent it to the Rev. R. Pound, rector of Wanstead, Essex, who obtained permission from Lord Castlemaine to erect it in Wanstead-park, for the support of the then largest telescope in Europe, made by Mons. Hugon, and presented by him to the Royal Society, of which he was a fellow. Soon afterwards, the following limping verses were affixed to the May-pole:—

"Once I adorned the Strand,  
But now I've found  
My way to Pound,  
In Baron Newton's land:

Where my aspiring head aloft is rear'd,  
To observe the motions of th' ethereal herd.  
Here sometimes raised a machine by my side,  
Through which is seen the sparkling milky tide:  
Here oft I'm scented with a balmy dew,  
A pleasing blessing which the Strand ne'er knew.  
There stood I only to receive abuse;  
But here converted to a nobler use;  
So that with me all passengers will say,  
I'm better far than when the pole of May."

A third pole must have been set up in May-fair, where a fair, which still gives name to the spot, was held for fifteen days.

Stubs describes the "May pole" as the "chiefest jewel," which the people "bring home with great veneration, as thus—they have twentie or fortie yokes of oxen, every oxe having a sweete nose-gale of flowers tied to the tip of his horns, and these oxen draw home the Maie-pole \* \* which they covered all over with flowers and hearbes, bound round with strings from the top to the bottome, and sometimes it was painted with variable colours, having 200 or 300 men, women, and children following it with great devotion. And, thus equipped, it was reared with handkerchiefs and flagges streaming about it, they set up summer halles, bowers, and arbours hard by, and then fall they to banquetting and feasting, to leaping and dauncing about it."

Sir Henry Ellis quotes an old pamphlet, in which we find the May-pole mentioned in a new and curious light. We gather from the writer that our ancestors held an anniversary assembly on May-day, and that the column of May, whence our May-pole, was the great standard of justice, in the Ey-commons, or fields. Here it was that the people, if they saw cause, deposed or punished their governors, their barons, or their kings. The judges' bough or wand (at this time discontinued, or only faintly represented by a trifling nose-gale), and the staff or rod of authority in the civil and in the military (for it was the mace of power, and the truncheon of the field officers), are both derived from hence. A mayor, he says, received his name from this May, in the sense of lawful power; the crown, a mark of disparity, was also taken from the May, being representative of the garland or crown, which, when hung on the top of the May, or pole, was the great signal for convening the people; the arches of it, which spring from the circle and meet together at the mound or round hall, being necessarily so formed, to suspend it at the top of the pole. He also tells us of a mock-battle custom between youth, the one party in winter and the other in spring livery; when spring was sure to gain the victory.

Washington Irving says: "I shall never forget the delight I felt on first seeing a May-pole; it was on the banks of the Dee, close by the picturesque old bridge that stretches across the river from the quaint little city of Chester. I had already been carried back into former days, by the antiquities of that venerable place, the examination of which is equal to turning over the pages of a black letter volume, or gazing on the pictures in Froissart. The May-pole on the margin of that poetic stream completed the illusion. My fancy adorned it with wreaths of flowers, and peopled the green bank with all the dancing revelry of May-day. The mere sight of this May-pole gave a glow to my feelings, and spread a charm over the country for the rest of the day: and as I traversed a part of the fair plains of Cheshire, and the beautiful borders of Wales, and looked from among swelling hills down a long green valley, through which the Devo wound its wizard stream, my imagination turned all into a perfect Arcadia. One can readily imagine what a gay scene it must have been in jolly old London when the doors were decorated with flowering branches; when every hat was decked with hawthorn; and Robin Hood, Friar Tuck, Maid Marian, morris-dancers, and all the other fantastic dancers and revellers were performing their antics about the May-pole in every part of the city. I value every custom which tends to infuse poetical feeling into the common people, and to sweeten and soften the rudeness of rustic manners, without destroying their simplicity."

## ANGLING.

PERCH, ruffe, bream, gudgeons, flounders, dace, minnows, eels, and trout, may be taken. Carp, burbel, tench, chub, roach, and bleak, spawn.



## EXHIBITIONS AND AMUSEMENTS OF THE METROPOLIS.

NAME.	SITUATION.	Days of Admission.	Hours of Admission.	Price of Admission.
Ancient Masters (Paintings by) -	49, Pall Mall - - - - -	Daily	10 to 4	1s
British Institution (Paintings) -	52, Pall Mall - - - - -	Daily	Opens in June, 10 to 4	1s
Dulwich Gallery (Ditto) - - - -	Dulwich College - - - - -	Every Day, except Friday	April to Nov., 10 to 5; Nov. to April, 11 to 3	Free
St. James's Gallery (Ditto) - - -	58, Pall Mall - - - - -	Daily	9 to 4	1s
National Gallery (Ditto) - - - -	Trafalgar-square - - - - -	Monday, Tuesday, Wednesday, Thursday	1st Nov to 30th April, 10 to 5; 1st May to Sept., 10 to 6	Free
Royal Academy (Paintings) - - -	Trafalgar-square - - - - -	Daily	Opens in May, 8 to dusk	1s
Prize Cartoons - - - - -	209, Regent-street - - - - -	Daily	1 to dusk	1s
Society of Painters in Water Colours	Pall Mall, East - - - - -	Daily	Opens in May, 9 to dusk	1s
Suffolk-street Gallery - - - - -	Suffolk-street, Pall Mall - - -	Daily	Opens in April, 10 to 4	1s
Water Colours (New Society) - - -	Pall Mall, East - - - - -	Daily	10 to 4	1s
Burford's Panorama - Hong Kong, Baden Baden, and Balbec.	Leicester-square - - - - -	Daily	10 to dusk	1s each View
Colosseum - - - - -	Regent's Park - - - - -	—	Opens in May	—
Cosmorama - - - - -	209, Regent-street - - - - -	Daily	10 to dusk	1s
Diorama - - - - -	Regent's Park - - - - -	Daily	10 to 5	2s
British Museum - - - - -	Great Russell-street, Bloomsbury	Monday, Wednesday, and Friday	Sept. 7th to May 1st, 10 to 4; May 7th to Sept 1st, 10 to 7	Free
Chinese Collection - - - - -	St. George's place, Hyde Park Corner	Daily	10 to dusk, and 7 to 10	1s
East India Company's Museum - -	East India House, Leadenhall-street	Saturday	11 to 3	Free
Geological Museum - - - - -	Craig's-court, Charing Cross - -	Daily	10 to 4	Free
Missionaries' Museum - - - - -	Bloomfield-street, Moorfields - -	Tuesday, Thursday and Saturday	March 25 to Sept 29, 10 to 4; rest of the Year, 10 to 3	Free
Napoleon Museum - - - - -	Egyptian Hall, Piccadilly - - -	Daily	10 to dusk	1s
Royal Institution Museum - - - -	Albemarle-street - - - - -	Daily	10 to 4	Member's Ord.
Royal Military Repository - - - -	Woolwich - - - - -	Daily	9 to 11, and 1 to 4	Free
Soane's Museum - - - - -	13, Lincoln's Inn-fields - - - - -	Thursday and Friday	10 to 4	Free
Surgeons' Museum - - - - -	Lincoln's Inn-fields - - - - -	First Four Days in the Week	12 to 4	Member's Ord.
United Service Museum - - - - -	Scotland-yard, Whitehall - - - -	Daily	April to Sept, 11 to 5; rest of the Year, 11 to 4	Member's Ord.
Custom House - - - - -	Lower Thames-street - - - - -	Daily	9 to 3	Free
Greenwich Hospital - - - - -	Greenwich - - - - -	Daily	9 to dusk	3d
Hampton Court Palace - - - - -	Hampton, Middlesex - - - - -	Daily, except Friday	Before 2 o'clock	Free
Guildhall - - - - -	King-street, Chapside - - - - -	Daily	10 to 3	Free
Kew Gardens - - - - -	Kew, Surrey - - - - -	Daily	12 to dusk	Free
Mansion House - - - - -	Facing Cornhill - - - - -	Daily	11 to 3	Free
Monument - - - - -	Fish-street-hill - - - - -	Daily	9 to dusk	6d
St. Paul's Cathedral - - - - -	Ludgate-hill - - - - -	Daily	10 to dusk	6d up to 4s 4d
Tower of London - - - - -	Tower-hill - - - - -	Daily	10 to 4	1s
Westminster Abbey - - - - -	Palace-yard, Westminster - - - -	Daily	9 to dusk	6d
Windsor Castle - - - - -	Windsor - - - - -	Monday, Wednesday, Thursday, Saturday.	—	—
Duke of York's Column - - - - -	St. James's Park - - - - -	Daily	12 to 3	6d
Adelaide Gallery - - - - -	Lowther Arcade, West Strand - -	Daily	11 to 5, and 7 to half past 10	1s
Polytechnic Institution - - - - -	309, Regent-street - - - - -	Daily	11 to half-past 5, & 7 to half-past 10	1s
Society of Arts - - - - -	John-street, Adelphi - - - - -	Daily, except Wednesday	10 to 2	Member's Ord.
Catlin's Indian Exhibition - - - -	Egyptian Hall, Piccadilly - - -	Daily	Announced by daily bills	1s
Deptford Dockyard - - - - -	Deptford - - - - -	Daily	10 to 3	Free
The Glaciarium - - - - -	Bazaar, Baker-street - - - - -	Daily	11 to 10	1s
Fancy Glass Exhibition - - - - -	151, Strand - - - - -	Daily	10 to 9	6d
Linwood's (Miss) Exhibition - - -	Leicester-square - - - - -	Daily	10 to dusk	1s
Mint - - - - -	Opposite Tower-hill - - - - -	Daily	11 to 3	Free
Model of Pisa - - - - -	121, Pall Mall - - - - -	Daily	10 to 5	1s
Parisian Anatomical Model - - -	209, Regent-street - - - - -	Daily	10 to 6	1s
Surrey Zoological Gardens - - - -	Manor-place, Walworth - - - - -	Daily	9 to dusk	1s
Thames Tunnel - - - - -	Wapping and Rotherhithe - - - -	Daily	Constantly	1d for Toll
Tussaud's (Madame) Exhibition - -	Bazaar, Baker-street, Portman-square	Daily	In Summer 11 to 10; Winter 11 to dusk, and 7 to 10	1s
	Egyptian Hall, Piccadilly - - -	Daily	11 to 1, and 2 to 5	1s
	Egyptian Hall, Piccadilly - - -	Daily	11 to 2, and 3 to half-past 8	1s
Woolwich Arsenal, Rocket Room, and Dockyard	Woolwich - - - - -	Daily	9 to 11, and 1 to 4	Free
Zoological Gardens - - - - -	Regent's Park - - - - -	Daily	10 to dusk	1s

## THEATRES.

NAME.	SITUATION.	NAME.	SITUATION.
Adelphi - - - - -	Strand - - - - -	Lyceum - - - - -	Strand - - - - -
Covent Garden - - - - -	Covent Garden and Bow Street	Her Majesty's Theatre - - - -	Haymarket - - - - -
Drury Lane - - - - -	Brydges Street - - - - -	Princess's - - - - -	Oxford Street - - - - -
Haymarket - - - - -	Haymarket - - - - -	Strand - - - - -	Strand - - - - -
St. James's - - - - -	King-street, St. James's - - - -		

## MISCELLANEOUS EXHIBITIONS, AMUSEMENTS, &amp;c.

Those marked thus (\*) require Tickets.

Those marked thus (+) are Free.

All the others must be paid for.

- \* Asiatic Museum, Grafton-street (Monday, Wednesday, and Friday).  
 Chelsea Military Academy, (Friday).  
 \* Entomological Museum, Bond-street (Tuesday).  
 Faraday's Lectures, Royal Institution (Tuesday, Thursday, and Saturday).  
 House of Lords (Wednesday and Saturday).  
 Hullah's Singing Classes (Monday and Thursday).  
 \* Linnean Collection, Soho-square (Wednesday, and Friday).  
 DAILY: Agricultural Society's Painting.  
 \* Ashburton Collection, Piccadilly.  
 Australian Scenery, Strand.  
 Baden Baden, Leicester-square.  
 + Bank.  
 \* Bevan Collection, Connaught-place.  
 \* Botanic Gardens, Chelsea.  
 Botanical Gardens, Gravesend.  
 \* Bridel Collection, Eaton-square.  
 Ceiling Painted by Rubens, Royal Chapel, Whitehall.  
 Commission of Fine Arts.  
 Corregio's Works, 57, Pall Mall.  
 \* Economic Geology Museum.  
 Frescoes of Paul Veronese.  
 \* Geological Museum, Somerset House.  
 Greenwich Observatory.  
 \* Grosvenor Gallery, Upper Grosvenor-street.  
 + Gresham Lectures.  
 Hong Kong, Leicester-square.  
 \* Hope Collection, Duchess-street, Portland-place.  
 \* Horticultural Gardens, Chiswick.  
 Loddige's Museum, Hackney.  
 + Magic Cave, Strand.  
 + Minasi's Pen and Ink Drawings, Praed-street.  
 Paintings in Wax, 60, Quadrant.  
 + Pantheon, Oxford-street.  
 Parisian Venus.  
 \* Peel Collection, Whitehall Place.  
 Rock Harmonicon.  
 \* Rogers' Collection, St. James's Place.  
 Rome (Model of), 121, Pall Mall.  
 Royal Botanic Gardens, Regent's-park.  
 \* Stafford Gallery, Belgrave-square.  
 \* Stafford-house, St. James's.  
 The Giralda, Hammersmith.  
 The Queen at Treport, Leicester-square.  
 Vauxhall Hogarth's, Tichborne-street.  
 Vernon's Collection, 50, Pall Mall.  
 Waterton's American Plants, Chelsea.





JUNE.

## OTTER-HUNTING

THE chase of the Otter is still an item in the catalogue of "the sports of England;" but its proudest records must be sought in the older annals of sporting in this country.

"The pomp and circumstance" of the olden Otter-chase were very striking: the huntsmen sallied forth arrayed, in vests of green, braided with scarlet, their caps of fur encircled with bands of gold, and surmounted with ostrich plumes. Boots, much of the fashion of those known to modern hunting-fields, reaching to the tops of the thighs, and water-proof, encased their lower limbs, and were ornamented with gold or silver tassels. Their spears were also embellished with carving and costly mountings; the whole set-out of the higher classes engaged in these water-huntings being of a very picturesque and imposing character. "Towards the latter end of the last century, otter-hunting was one of the most popular of our field sports, and the list of establishments supported for its pursuit would have, probably, outnumbered those devoted to hunting in any of its other forms. Regular packs of otter-hounds were kept in almost every parish, and an otter-pole was as common an instrument in the peasant's hands as a walking-stick. It was much more simple than the spear now in use; it was merely a stick of straight ash, shod with a common iron barb head, or a fork of two prongs, also arrow-headed. With these weapons in their hands, and a motley group of miscellaneous curs at their heels, the village rustics would hie them to the neighbouring streams, to chase, in humble imitation of their betters, the *Mustela lutea* of the naturalist." (Craven.—*Sporting Review*.)

But otter-hunting is now fast dying away, though it is still kept up in parts of Ireland, Scotland, and Wales. Mr. Macgillivray informs us that Mr. Lomaire hunted the Dumfriesshire rivers in 1833, 1834, 1835: and that Lord John Scott keeps a park of otter-hounds for the streams of Roxburghshire. "The modern otter-spear," says Craven, "is an article of some artificial pretension. It is, like its predecessor, a long flexible ash-pole, but headed with a barb somewhat scientifically constructed. The smaller end of the pole being bored and fitted with a counter-sink (a female screw and collar), a spring barb is screwed to it. The barb is so constructed, that, being driven into the hide of the quarry, it expands, and gives out two hooks, which effectually prevent the hold of the spear being destroyed by any efforts of the animal to release itself."

In England but few other packs exist, but a splendid run is occasionally enjoyed. Thus, on September 14, 1841, the Haworth and Stockton otter-hounds commenced running on the river Tees, at Dinsdale Spa fish-locks, and, on the first day, terminated at Low Middleton Deepes, where the otter was seized, but again set at liberty, and hunted till dark. The chase was renewed next day at Dinsdale-bridge, when, after another glorious run, the otter was secured. His length was four feet two inches and a half; and, taking the time occupied during both days, fifteen hours were devoted to the chase—a circumstance unparalleled in the annals of otter-hunting.

The best of modern otter-slayers, however, and the most experienced authority on the sport, is the Hon. Grautley Berkeley, of Beacon Lodge, in Hampshire: who, with four old fox-hounds and three white terriers, enjoyed some splendid otter-hunting in the New Forest, during the summer of 1840, when he put four other otters down, and killed them all.

We understand that the crack pack of otter-hounds belonging to E. Dixon, Jun., Esq., of Worcester, has had some splendid hunts of late. Near Bromyard no fewer than three otters were killed in one day, but not before some of the hounds were so knocked up as to require putting into a warm bath.

Although the otter rejects all baits in the trap, an instance occurred in August, 1799, in the river Buckland, near Dover, of his taking a line bait. An otter suddenly darted from his hole, and seized the bait of a gentleman trolling for pike, who thought the bait was taken by an overgrown fish, in conse-

quence of the animal's violent struggles. After a long contest, in which the troller displayed much skill, to his great astonishment and that of others upon the spot, he drew the otter to the shore completely exhausted.

## RACING.

THE Sporting Calendar of this month boasts of the gaiety and splendour of the races at Epsom and Ascot Heath. The Derby day at Epsom is an illustrated epitome of the history of English sports, manners, and society. It is, truly, a national scene, and one so peculiarly and so completely national, so identified with the very nature of Englishmen, that it will show more of the national character to a foreigner in a few hours than months of residence and inquiry could furnish even to an industrious and judicious investigator. There is a sort of magic in the words Epsom Races, which arouses the hopes, recollections, anticipations, and sympathies of hundreds of thousands of people of all classes of society throughout the great metropolis of Britain, from one end to the other, and throughout the whole length and breadth of the land. The spirit of horse-racing is peculiar to this country; it is a spirit indigenous with Englishmen, and though it has of late years been extended to the Continent, it is there as yet but a sickly importation, and can only be kept alive by the usual means and appliances for the preservation of exotics and interpolations. Here may be seen an almost endless succession for several hours of those elegant carriages, the workmanship of the celebrated builders of Long Acre, &c., unequalled, and not to be equalled, in lightness, strength, convenience, and beauty, by the coachbuilders of all the rest of the world put together. These carriages are drawn by horses of matchless strength and action—horses that are superior to any others to be met with in France, Italy, Germany, or Spain. Here may be seen, "going along" at twelve miles an hour, nearly five hundred pairs of "posters," the property of a single post-master, driven by "boys" dressed in the neat costume of their "profession," besides several hundred of other "posters" of nearly, if not of quite, equal worth and goodness. Here, too, are to be seen the splendid "turn-outs" of the noblemen and gentlemen who drive their own "teams," the Corinthian "drags" of the "four-in-hands" of the crack "whips" of the day, all hurrying to Epsom, and freighted with the most fashionable and lovely women in the world, by whose presence the sports are exalted, and the whole business of the day harmonized and humanized into rational and elegant recreation. The train of carriages that passes along this outlet of the western end of the town is of itself a sight well worth the being seen—a sight which, to look at, as the Roman poet says,—

"Would make old Nestor young."

and one which many will long remember with pleasure, and talk of hereafter as one of the best things in memory's waste.

The first Arabian, which had ever been known as such in England, was purchased by the royal jockey, of a Mr. Markham, a merchant, at the price of five hundred pounds. That illustrious master of the science of equitation, the Duke of Newcastle, in his treatise, describes this Arab as a little bay horse, of ordinary shape, and judges he was good for nothing, because, being trained and started, he could not race, but was beaten by every horse which ran against him.

## ANGLING.

IN JUNE, roach, dace, minnows, bleak, gudgeons, eels, barbel, ruffe, perch, pike, and trout, are in season. Carp, tench, bream, and gudgeons spawn. The white gnat, cock-tail, gold spinner, governor, blue gnat, whirling dun, hares' ear, and kingdom flies, make their entrée. The gold-spinner, governor, and kingdom flies continue till August; the blue gnat for about a fortnight, and the other flies in this month's list, during the summer.



**LONDON EXCURSION GUIDE,**  
SHOWING A NUMBER OF TRIPS WHICH MAY BE MADE ROUND LONDON, WITH THE DISTANCES, OBJECTS OF ATTRACTION, AND EXPENCES.

Name of Place.	Distance.	Lowest Fares.	Conveyances, and other Particulars.	Attractions.
Blackwall	5 miles	0s. 4d.	Steamboats from Hungerford Market, London Bridge, and intermediate Stations.—Railway from Fenchurch street.	White-bait dinner and river view—sailing boats and rowing.
Brighton	50 "	5 0	Railway from London Bridge. The journey only occupies 2½ hours—fine views on the road.	The sea, promenades, baths, and Pavilion.
Chelsea	3 "	0 4	Steamboats from London Bridge, Vauxhall, and intermediate Stations	Chelsea College, Cheyne Walk, a pleasant promenade.
Dover	72 "	6 0	Steamboats from London Bridge, and Railway. The trip by water very pleasant in fine weather—occasional fine views from the railroad.	Dover Castle, Shakespeare's Cliff, marine views, baths, &c.
Dulwich	6 "	1 0	Omnibuses. Pleasant drive. Tickets to be obtained at Ackermann and Co.'s.	Fine Picture Gallery and delightful scenery.
Gravesend	21 "	1 0	Steamboats every morning from Hungerford Market and London Bridge. A very interesting and agreeable trip.	River Scenery, Tilbury Fort, Cobham Hall, Picture Gallery.
Greenwich	5 "	0 4	Steamboats from Hungerford Market, London Bridge, and intermediate Stations. Railroad from London Bridge. Omnibuses (6d.) from West-end and City, or from Elephant and Castle.	Hospital, with Picture Gallery, Chapel, &c., fine Park, Observatory, &c. Gallery and Chapel open, gratis, on Mondays and Fridays—other days, 3d. each.
Hampton Court	11 "	1 6	Steamboats from London Bridge, and Railway from Nine Elms; the latter several times a day. The boats to Nine Elms every half hour. The rail takes to Kingston, whence a pleasant walk to Hampton Court.	Hampton Court Palace and Gallery of Pictures, admission free—fine gardens and walks.
Harrow	12 "	1 0	Birmingham Railway, Euston-square. A pleasant trip	Charming prospects, Byron's school.
Heerne Bay	39 "	4 0	Steamboats from various Quays below London Bridge	Pleasant maritime trip—generally fine sight of ships sailing
Kew	10 "	1 0	Steamboats (Richmond) to Kew Bridge. Omnibuses	The Royal and Botanic Gardens.
Margate	72 "	6 0	Steamboats from Quays at and below London Bridge. The old Marine suburb of London.	Fine marine views, pleasant walks on the cliffs.
Nore (The)	55 "	2 6	Steamboats from Quays at and below London Bridge. Fleet of men-of-war.	Generally a crowd of sail of merchantmen.
Norwood	7 "	0 6	Omnibuses and Railway from Bricklayers' Arms. A very pleasant ride	Beulah Spa, Penge Wood, Annerby Gardens, &c.
Putney	6 "	0 8	Omnibuses and Steamboats ( <i>See Chelsea</i> )—get down at Putney Bridge	Pleasant river-side village—birth-place of Gibbon.
Ramsgate	72 "	5 0	Steamboats from Wharfs below London Bridge. A favourite watering-place.	Sea views and bathing.
Richmond	11 "	1 6	Steamboats from London Bridge and Hungerford Stairs	Richmond Hill—pleasant walks and rides—fine scenery.
Southend	50 "	2 0	Steamboats from below London Bridge. ( <i>See Margate, &amp;c.</i> )	Sea and land views, shipping, &c.
Twickenham	15 "	1 6	Steamboats from London Bridge. ( <i>See Richmond, &amp;c.</i> ) Trip up the Thames.	Beautiful prospects, Pope's Villa.
Waltham	15 "	1 0	Northern and Eastern Railway, Shoreditch	The ancient Cross raised to the memory of Queen Eleanor, Waltham Abbey, views in Epping Forest, &c.
Watford	18 "	2 0	Birmingham Railway, Euston-square	Pleasant town—Lord Exeter's Park.
Windsor	21 "	1 6	Great Western Railway to Slough, whence the visitor is conveyed to the Castle for 6d. more. Pleasant boat excursion from Richmond to Windsor up the sylvan Thames.	Windsor Castle—a noble fabric—a royal residence. Fine pictures and other objects of interest.
Woolwich	8 "	8d. & 6d.	Steamboats every half-hour from Hungerford, London Bridge, &c. ( <i>See Greenwich, &amp;c.</i> ) Railroad to Greenwich, steamboats from the latter place every half-hour to Woolwich.	Dockyard and Arsenal, two of the most remarkable establishments in the world.

**NEW CORN LAW DUTIES.**

*If imported from any FOREIGN COUNTRY.*

**WHEAT.**

Whenever the average price of CORN, made up and published in the manner required by law, the Duty shall be for every Quarter:—

Under 51s.	-	-	20s.	59s. and under 60s.	-	-	13s.	66s. and under 69s.	-	-	-	6s.
51s. and under 52s.	-	-	19	60 - - - 61 -	-	-	12	69 - - - 70 -	-	-	-	5
52 - - - 55 -	-	-	18	61 - - - 62 -	-	-	11	70 - - - 71 -	-	-	-	4
55 - - - 56 -	-	-	17	62 - - - 63 -	-	-	10	71 - - - 72 -	-	-	-	3
56 - - - 57 -	-	-	16	63 - - - 64 -	-	-	9	72 - - - 73 -	-	-	-	2
57 - - - 58 -	-	-	15	64 - - - 65 -	-	-	8	73 and upwards	-	-	-	1
58 - - - 59 -	-	-	14	65 - - - 66 -	-	-	7					

**BARLEY.**

Under 26s.	-	-	11s.	31s. and under 32s.	-	-	7s.	35s. and under 36s.	-	-	-	3s.
26s. and under 27s.	-	-	10	32 - - - 33 -	-	-	6	36 - - - 37 -	-	-	-	2
27 - - - 30 -	-	-	9	33 - - - 34 -	-	-	5	37 and upwards	-	-	-	1
30 - - - 31 -	-	-	8	34 - - - 35 -	-	-	4					

**OATS.**

Under 19s.	-	-	8s.	23s. and under 24s.	-	-	5s.	26s. and under 27s.	-	-	-	2s.
19s. and under 20s.	-	-	7	24 - - - 25 -	-	-	4	27 and upwards	-	-	-	1
20 - - - 23 -	-	-	6	25 - - - 26 -	-	-	3					

**RYE, PEAS, AND BEANS.**

Under 30s.	-	-	11s. 6d.	35s. and under 36s.	-	-	7s. 6d.	39s. and under 40s.	-	-	-	3s. 6d.
30s. and under 33s.	-	-	10 6	36 - - - 37 -	-	-	6 6	40 - - - 41 -	-	-	-	2 6
33 - - - 34 -	-	-	9 6	37 - - - 38 -	-	-	5 6	41 - - - 42 -	-	-	-	1 6
34 - - - 35 -	-	-	8 6	38 - - - 39 -	-	-	4 6	42 and upwards	-	-	-	1 0

**WHEAT, MEAL, AND FLOUR.**—For every barrel, being 196 pounds, a duty equal in amount to the duty payable on 3½ gallons of Wheat.

**OATMEAL.**—For every quantity of 18½ pounds, a duty equal in amount to the duty payable on a quarter of Oats.

**MAIZE OR INDIAN CORN, BUCK-WHEAT, BEAR OR BIGG.**—For every quarter, a duty equal in amount to the duty payable on a quarter of Barley.

*If the produce and imported from any British Possession (except Canada) in North America, or elsewhere out of Europe.*

**WHEAT.**

Under 55s.	-	-	5s. 0d.	56s. and under 57s.	-	-	3s. 0d.	58s. and upwards	-	-	-	1s. 0d.
55s. and under 56s.	-	-	4 0	57 - - - 58 -	-	-	2 0					

**BARLEY.**

Under 28s.	-	-	2s. 6d.	29s. and under 30s.	-	-	1s. 6d.	31s. and upwards	-	-	-	0s. 6d.
28s. and under 29s.	-	-	2 0	30 - - - 31 -	-	-	1 0					

**OATS.**

Under 22s.	-	-	2s. 0d.	22s. and under 23s.	-	-	1s. 6d.	23s. and upwards	-	-	-	0s. 6d.
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**RYE, PEAS, AND BEANS.**

Under 30s.	-	-	3s. 0d.	31s. and under 32s.	-	-	2s. 0d.	33s. and under 34s.	-	-	-	1s. 0d.
30s. and under 31s.	-	-	2s. 6d.	32 - - - 33 -	-	-	1 6	34s. and upwards	-	-	-	0s. 6d.

**WHEAT, MEAL, AND FLOUR.**—For every barrel being 196 pounds, a duty equal in amount to the duty payable on 3½ gallons of Wheat.

**OATMEAL.**—For every quantity of 18½ pounds, a duty equal in amount to the duty payable on a quarter of Oats.

**MAIZE OR INDIAN CORN, BUCK-WHEAT, BEAR OR BIGG.**—For every quarter, a duty equal in amount to the duty payable on a quarter of Barley.

**CANADA CORN.**

By the Act passed in the Session of 1843, Corn from Canada is admitted into England on payment of 1s. a quarter duty; a duty of 3s. a quarter being imposed on Corn admitted into Canada.—Total fixed duty 4s. a quarter.





JULY.

## DEER STALKING.

W. SCROPE, Esq., one of the best deer-stalkers in the world, and quite the best writer about deer-stalking, says—

"Your consummate deer-stalker should not only be able to run like an antelope, and breathe like the trade-winds, but should also be enriched with various other undeniable qualifications. As, for instance, he should be able to run in a stooping position, at a greyhound pace, with his back parallel to the ground, and his face within an inch of it, for miles together. He should take a singular pleasure in threading the seams of a bog, or in gliding down a burn, *ventre à terre*, like that insinuating animal the eel,—accomplished he should be in skillfully squeezing his clothes after this operation, to make all comfortable. Strong and pliant in the ankle, he should most indubitably be; since, in running swiftly down precipices, picturesquely adorned with sharp-edged, angular, vindictive stones, his feet will, unadvisedly, get into awkward cavities and curious positions;—thus, if his legs are devoid of the faculty of breaking, so much the better,—he has an evident advantage over the fragile man. He should rejoice in wading through torrents, and be able to stand firmly on water-worn stones, unconscious of the action of the current; or if, by fickle fortune, the waves should be too powerful for him, when he loses his balance, and goes floating away upon his back (for if he has any tact, or sense of the picturesque, it is presumed he will fall backwards), he should raise his rifle aloft in the air, Marmon fashion, lest his powder should get wet, and his day's sport come suddenly to an end. A few weeks' practice in the tilt will make him quite *au fait* at this. We would recommend him to try the thing in a speat, during a refreshing north wind, which is adverse to deer-stalking; thus no day will be lost pending his education. To swim he should not be able, because there would be no merit in saving himself by such a paltry subterfuge; neither should he permit himself to be drowned, because we have an affection for him, and moreover it is very cowardly to die.

"As to mental endowments, your sportsman should have the qualifications of an Ulysses and a Philidor combined. Wary and circumspect, never going rashly to work, but surveying all his ground accurately before he commences operations, and previously calculating all his chances both of success and failure. Patience under suspense and disappointment, calm and unruffled in moments of intense interest, whether fortune seems to smile or frown on his exertions; and if his bosom must throb at such times, when hopes and fears by turns assail it, he should at all events keep such sensations under rigid control, not suffering them to interfere with his equanimity, or to disturb the coolness and self-possession which at such moments are more than ever necessary to his operations.

"That Deer-Stalking is a chase," says Mr. Scrope, "which throws all other field-sports in the back ground, and, indeed, makes them appear wholly insignificant, no one, who has been initiated in it, will attempt to deny. The beautiful motions of the deer, his picturesque and noble appearance, his sagacity, and the skilful generalship which can alone insure success in the pursuit of him, keep the mind in a state of pleasurable excitement." Yet, with all this excitement, the fall of the noble animal recalls the lament—

"Magnificent creature! to reach thee I strain  
Through forest and plain, over mountain and plain;  
Yet, now thou art fallen, thy fate I deplore,  
And lament that the reign of thy greatness is o'er."

THE HON. T. LIDDELL.

The localities of Deer-stalking are principally confined to the Highlands

of Scotland, consequently they embrace some of the most interesting scenery imaginable. The Highlands are nominally divided into the West and the North. The former owns the shires of Dumbarton, Argyle, Bute, and part of Perth; the latter comprehends the counties of Inverness, Ross, Sutherland, &c. In early times, the red deer and doe particularly abounded. Since, increased population, and the attention paid to local agriculture, have reclaimed much of the ground, and appropriated it to the culture of cattle, particularly rearing of sheep. There, however, still remain the Highland firs, which, being the property of persons of rank and wealth, are yet preserved for the accommodation of wild game, but particularly of red deer. It is common to call all the vast tracts which form the natural range of the red deer, by the name of forest; but the reader must not consider these as a continuous tract of vast woods; on the contrary, many of these so-called forests are entirely destitute of wood, except occasionally, scattered patches of brushwood. Ancient chronicles, however, assure us that many of them, in bygone days, were thickly wooded, although their other features were those of rocky heights, of vast extent and wildness, abruptly terminating in morasses, which frequently ended on the bank of some expansive loch.

## CRICKET.

This truly English game of strength and activity is now in its zenith, and all the cricket clubs are open for the season. Formerly, cricket was almost confined to the southern counties: Kent, Sussex, and Surrey, more especially, have always been famous for skill in it. Of late years it has spread a good deal in the northern quarter of the island; there is scarcely a county in England without its regularly established cricket club; and in Scotland, where, a few years back, cricket was altogether unknown, it is now making a surprising advance.

The rules of cricket are, at once, too well known, and too complicated, to be here explained: they are subject to variations, at the pleasure of the Marylebone club, which meets at Lord's cricket ground, St. John's Wood. The laws and decisions of that society are recognized by cricket players in general, in the same way that the authority of the jockey club is held definitive, in questions relating to horse racing. Corrected laws were issued by the society in May, 1844. Cricket is played almost exclusively by the British, who have carried it into many parts of the world, where the climate seems little suited to the exertion which it requires: as, for example, in Bengal.

To one intimate with the country, and, therefore, fond of rural enjoyment, July offers two very peculiar sources of pleasure. It is the season of hay-making, and of sheep-shearing, both of which operations still retain much of the gaiety of ancient festivals. Shakespeare and Dryden have poetically described the recreations of our ancestors at these rural feasts, and a writer of more recent date, Dyer, has made "The Fleeco" the subject of a beautiful and patriotic poem.

## ANGLING.

In July trout, dace, flounders, eels, bleak, minnows, pike, barbel, gudgeons, and roach, afford good sport. Bream and carp spawn.

In July, August, and September, the fly-fishing lists are very scanty; in the first-named month, the red ant; in the second, the whirling blue; and in the last, the willow fly, are the only novelties; they continue in use till the conclusion of the fishing season.



## FOREIGN COINS IN BRITISH VALUE.

Crusade—Portugal, 2s. 5d.

Dollar—Spanish, 4s. 6d.

Ducat—Flanders, Holland, Bavaria, Sweden, 9s. 3d.; Prussia, Austria, and

Saxony, 9s. 4d.; Denmark, 8s. 3d.; Spain, 6s. 9d.

Florin—Prussia and Poland, 1s. 2d.; Flanders, 1s. 6d.; Germany, 2s.

Franc—French, 10d.

Guilder—Dutch, 1s. 9d.; German, 2s. 4d.

Louis d'Or—20s.

Moldore—Portugal, 27s.

Pagoda—Asia, 8s. 9d.

Piastre—Arabian, 5s. 6d.; Spanish, 3s. 7d.

Pisole—Spanish, Barbary, 16s. 9d.; Italy, 15s. 6d.; Sicily, 15s. 4d.

Re—Portugal, 27.4d. of 1d.; a Mil-re, 6s. 7½d.

Rial—Spanish, 5d.

Rix-dollar—German, 3s. 6d.; Dutch, 4s. 4½d.; Hamburg, Denmark, 4s. 6d.;

Sweden, 4s. 8d.

Rouble—Russian, 3s. 3d.

Rupce—Asia, Silver, 2s. 6d.

Gold, 35s.

As almost all estimates of French expenditure are made in francs, of which 25 amount to a pound sterling, it will be sufficient for common purposes of rapid calculation, to employ the following rule.—

Francs.						£ sterling.
100 equal to	..	..	..	..	..	4
1,000	..	..	..	..	..	40
10,000	..	..	..	..	..	400
100,000	..	..	..	..	..	4,000
1,000,000	..	..	..	..	..	40,000

## RAILWAY TERMINI IN LONDON.

London and Birmingham, Euston-square, New road.

London and Blackwall, New London-street, City.

London, Croydon, Dover, and Brighton, Old Kent Road.

Eastern Counties, Shoreditch.

Great Western, Paddington.

London and Greenwich, London Bridge, Southwark.

Northern and Eastern, Shoreditch.

South Western, Nine Elms, Vauxhall.

## LONDON FIRE BRIGADE, 68, WATLING-STREET.

The following are Stations at which Engines are to be found, Day and Night:—

Ratchffe, Wellclose-square.

Cheapside, 68, Watling-street.

Holborn, 254, Holborn.

Oxford-street, Wells-street.

Portman-square, King-street, corner

of Baker-street.

Southwark Bridge Road, near Union-

street.

Westminster, Horseferry-road.

Rotherhithe, Pea-addie-row

St. Mary Axe, Jeffries-square.

Finsbury, Whitecross-street.

Blackfriars, Farringdon-street.

Covent Garden, Chandos-street.

St. Giles's, George-yard, Crown-st.

Golden-square, King-street.

Tooley-street, Morgan's-lane.

Shadwell, Schoolhouse-lane.

Waterloo-bridge road, next door to

Zion Chapel.

The Floating Engines lie off King's-  
stairs, Rotherhithe, and South-  
wark-bridge.

## PENALTIES UNDER THE STAMP ACT.

For acting as an Appraiser without a license, £50.

For every Appraisement written upon paper not duly stamped, £50.

Apprentices Indentures to state the real amount of premium in proportion to which the stamp duty is charged, on penalty of forfeiting double the amount of premium.

For Attorneys and Solicitors acting without having been admitted, £100.—

For acting without certificate, £50.

For drawing a Bill or Promissory Note upon unstamped paper, £50.—For

post-dating Bills of Exchange, £100.

For drawing a Check more than ten miles from the place where made payable, £100.—For receiving the same in payment, £20.—For Bankers paying the same, £100.

For setting out wrong amount in Conveyance. On the Attorney, £500.

On the purchaser, £50.

For selling Patent Medicines, &amp;c., without a license, £20. Without a

stamp, £10.

For printing a Newspaper without first making affidavit as to the ownership,

&amp;c., £100. For delaying to enter each publication at the Stamp Office, £100.

For printing without stamps, on each paper issued, £20.

For neglecting or delaying to enter Pamphlets at the Stamp Office, or selling without paying duty when demanded, £20.

For Pawnbrokers taking pledges without a license, £50. For selling Plate without a license, £20. For selling plate without being duly stamped, £50.

For taking possession of the effects of any one deceased, without taking out Letters of Administration, £100.

For giving a Receipt (by which is understood any memorandum for money received) upon unstamped paper, if under £100—£10; if above £100—£20.

For refusing to give a receipt on a stamp, £10. For giving receipt upon a stamp too low for the amount thereon specified, £10. For giving receipt for less than the sum received, £50.

For keeping or employing any Stage Carriage without license, or without plates, or with recalled or improper plates, or using them contrary to the license, £20. For carrying more passengers than authorised by license, for each passenger, £5. For omitting to paint the name of the proprietors, the extreme places from, to, and which such carriages travel, and the number of passengers for which it is licensed, £5. For luggage exceeding the prescribed height on the top of such carriage, £5.

## ABSTRACT OF THE WILLS ACT—[1 Victoria, c. 26].

*Operation of the Act.*—The Act does not extend to Scotland; neither does it affect the wills of soldiers or sailors on actual service, nor wills made before the commencement of 1838. But all wills, with the exception of those of soldiers or sailors, made after the commencement of 1838, come under the provisions of the Act.

*What kind of Property may be bequeathed by Will.*—It is lawful for every person to devise, bequeath, or dispose of, by his will executed in the manner directed by the act, all real estate, and all personal estate which he shall be entitled to either at law or in equity, at the time of his death.

[All property may thus be bequeathed by will. "Real estate" extends to manors, advowsons, messuages, lands, tithes, rents, and hereditaments, whether freehold, customary freehold, tenantright, customary or copyhold, or of any other tenure, and whether corporeal, incorporeal, or personal, and to all future and contingent interests therein. "Personal estate" extends to leasehold estates, and other chattels real, and also to moneys, shares of government, and other funds, securities for money (not being real estate) debts, rights, credits, goods, &c.]

*How a Will should be made.*—A will can only be made in writing; and it must be signed at the foot and end by the testator himself; or, if he is unable to do it, by some person for him, in his presence, and by his direction; and his testator must either make or acknowledge his signature in the presence of two or more persons, who are to be present at the same time, and who are to sign their names as attesting witnesses in the presence of the testator. No particular form of attestation is necessary.

[The above mode must be observed by all persons, male, or female, in making their wills. If any person is drawing up his will, or having it drawn up for him, without legal assistance, the best mode of expression will be the simplest and plainest that can be used. Care must be taken not to bequeath legacies to attesting witnesses, or even to the wife or husband of an attesting witness, as all legacies so bequeathed are void in law. The object of this enactment seems to be to prevent any will from being disputed or nullified on account of any alleged undue interest on the part of an attesting witness. If, therefore, a testator wishes to give anything to an attesting witness, he must do it in some other way than by a legacy. But creditors and executors can be attesting witnesses.]

*Who cannot make a valid Will.*—Persons under twenty-one years of age cannot make a valid will. Neither can married women in the lifetime of

their husbands, except where they have property settled on them with a power of devising, &c.

*What of itself Revokes a Will.*—Any man or woman, having made a will, and marrying afterwards, the act of marriage revokes the will, "unless made in exercise of a power of appointment, when the estate thereby appointed would not in default pass to his or her heir, customary heir, executor or administrator, or the person entitled as his or her next of kin, under the statute of distributions."

*How a Will may be Revoked or Altered.*—A will can only be revoked by being destroyed, or by the execution of a new will. Alterations must be made in the same way as a will.

[Persons making any alterations in their wills must therefore be careful that the alterations are witnessed and signed in the same way as the wills.]

*How a Will is to be hereafter Construed.*—Wills are to be construed as if made immediately before the death of the testator, unless a contrary intention appears from the terms of a will itself.

A residuary devise shall include the estates bequeathed by lapsed and void devises, unless a contrary intention shall appear.

A general devise of the testator's land shall include copyhold and leasehold, as well as freehold lands, unless a contrary intention shall appear.

A general gift shall include estates over which the testator has a general power of appointment, unless a contrary intention shall appear.

A devise without any words of limitation shall be construed to pass the fee, unless a contrary intention shall appear.

The words "die without issue," or "die without leaving issue," shall be construed to mean die without issue living at the death of the person, and not an indefinite failure of his issue, unless a contrary intention shall appear by the will, by reason of such person having a prior estate tail, or of a preceding gift, being, without any implication arising from such words, a limitation of an estate tail to such person or issue, or otherwise; but this Act shall not extend to cases where such words import if no issue described in a preceding gift shall be born, or if there shall be no issue who shall live to attain the age or otherwise answer the description required for obtaining a vested estate by a preceding gift to such issue.

[The preceding abstract gives the main points of this important Act, which tends to simplify the law of wills, and prevent the litigation so often arising from the disposal of property by bequest.]

## QUARTER SESSIONS IN THE SEVERAL COUNTIES OF ENGLAND AND WALES.

By the Act 1 Will. IV., c. 70, it is enacted, that "in the year 1831, and afterwards, the justices of the peace in every county, riding, or division, for which Quarter-Sessions of the Peace by law ought to be held, should hold their general Quarter-Sessions of the Peace in the first whole week after the 11th of October, in the first week after the 28th December, in the first week after the 1st of March, and in the first week after the 24th June."

It having been found that some inconvenience occasionally arose from the time fixed for holding of the Spring Quarter-Sessions interfering with that

appointed for holding the Spring Assizes, an Act was passed 4 and 5 W. IV. c. xlvii. allowing a discretionary power of the Justices of Peace as to the time of holding the Spring Quarter-Sessions, and they are empowered at the preceding Epiphany Sessions to appoint two of their body to alter the day for the Quarter-Sessions, if they shall see occasion, so as not to be earlier than the 7th March, nor later than the 22nd of April; notice of the day so appointed is to be advertised in such papers as the Justices shall direct.





AUGUST.

## GROUSE SHOOTING.

AUGUST the twelfth is the day fixed in the British sportsman's calendar for the commencement of the pursuit of the grouse, which, in his general estimation, says Captain Lacy, "if not deemed the very fox-hunting of shooting indisputably occupies a very high place, and most deservedly so, whether we consider the extreme beauty, elegance, and gameness of this truly British bird itself; its deep, rich plumage, so charmingly in harmony with the lovely beather it dwells among, whose tender tops it crops for support, and under whose friendly fringed shade it cowers for protection; or whether we turn to its native haunts, whose dreariness it enlivens and ennobles—the isolated majestic heights in some of the most romantic parts of our highly-favoured isle—we are alike induced to regard it with esteem and admiration. Besides, grouse shooting is not only the most laborious of all shooting, but is a science in itself."

Grouse shooting in general, and on a subscription moor in particular, is a very different sort of thing in England to what it is in many parts of the Highlands, where the best sport of the kind in the known world is unquestionably to be obtained; "though even," says Captain Lacy, "that varies very materially in different districts; so much so, that it behoves an English shooting party to have better authority than a mere advertisement before they agree to pay a heavy rent for grouse shooting quarters, or 'shootings,' and especially if the intention be to take them on a lease; for, though the hills be represented as abounding with game—the burns and rivers as swarming with trout and salmon, with a plentiful sprinkling of roe, red deer, cocks, and wild-fowl, by way of a refreshing change—the reality is often found to fall not a little short of the glowing description. Moreover, the complaint of late years alleged against the mountain lords, of not taking sufficient pains to keep a good stock of game on their grounds, is, in general, but too well founded."

All dogs for grouse shooting should, at all times, be particularly steady; not a syllable should be required to be spoken to them, but all done by hand-work, unless the whistle be occasionally used as a signal for them to turn, grouse being the most sensitive and the soonest disturbed of all game.

A popular sporting writer says—"There is no department of the chase wherein the gun is used as the instrument of capture that approaches, much less equals, it in the quantity of excitement, and of positive enjoyment it affords its followers. The tawny tiger, it is said, once having tasted human blood, thirsts for it evermore, and hereafter is dissatisfied with ignoble prey; the modern shooter, it is known, once having rejoiced in a perfect day's grouse, from that time forward places it highest among his affections, sets a lesser value upon all other kinds of fowling, and naturally seeks occasion for renewing the pleasure as frequently as he may in future."

"Again, whether you choose Scotland, Ireland, the north of England, or Wales, for the scene of your sanguinary exploits, the total change, not merely in scenery, but in the manners, customs, and language of the people, is equally striking and delightful. Accustomed, probably, to town life—or it may be, to the rich but monotonous campaigns of the southern counties—with what vivid emotion do you greet the sky-piercing summit of Ben Lomond, of Skiddaw, or Helvellyn, of Snowdon, or Cader Idris!"

The red grouse of the principality are notoriously the largest existing. In the south, good red grouse shooting will be found in the counties of Glamorgan, Carmarthen, and Radnor; in those of Cardigan and Brecon, excellent; also, in Merioneth and Montgomery, in the north. To those sportsmen from the midland and southern parts, with whom brevity of time and distance is a consideration, we would heartily recommend an excursion to Wales, in the full assurance that they will not be disappointed in their object.

We would recommend the novice never to visit any extensive moors for the purpose of grouse shooting without a companion, or a guide who perfectly understands the nature of the locality to be visited, and the required preparations to be made for it, in the way of dogs, guns, ammunition, and personal appointments, &c., &c. One who does not do thus, often meets with many mortifications and disappointments in his high raised expectations. We have heard of one who, by some recommendation, having determined to fix his shooting quarters at a village in the precincts of the grouse grounds of the Bishop of Durham, was joined by another grouser, equally experienced and intelligent. The following memorandum of the united efforts of both, as we suppose, was found on the return:—"Retired to rest at eight in the evening, rose at half-past twelve, and having breakfasted, set off by starlight to our grounds; but, as when we arrived there it was still starlight, we sat down on the heather, flattering ourselves that as soon as it was light, our strength being recruited, we should be the better prepared for the work of destruction we contemplated. A dense fog, however, succeeded the dawn, which hid every object from our sight, although our ears were tantalised not only with the chattering of birds, but with the sound also of many shooters in pursuit of them on the other side of the mountain, less obscured by fog. Their guns, as we, distinctly heard, were in full practice; but we knew too little of the country, and were too tired, to follow them; so we returned to our quarters, purchased a few young grouse (poult we suppose) at a great price, packed up our traps, sent away Ponto by the waggon, and took ourselves off by the coach,—"risum teneatis amici." In the detail of red grouse, black grouse, and ptarmigan shooting, which follows, the reader will be presented with many pictures, which bring him into more minute acquaintance with this romantic district. Here Nature appears to wear her sternest features, yet here the sportsman revels in the joys of the chase; for here the lofty precipices swarm with ptarmigan, whose snowy pinions rival the snow itself. A little lower down, on the same mountain, he meets with the blackcock, and, if very far north, he may see the red-deer stalked, and the roe-buck pursued. The eagle and the hawk will hover around him; and, if he be fond of the sublime, he may here indulge himself in viewing Nature in her wildest dress, and look with veneration on that Providence who has given even to these regions charms sufficient to call the southron from his home to visit them.

## ANGLING.

BARBEL (this and next month, the best), bream, gudgeons, roach, flounders, chub, dace, eels, bleak, minnows, pike, ruffe, and perch, bite freely.

Ant flies may be procured from June till September in their hills: they are never-failing baits for chub, roach, and dace, if you let your hook hang about six inches from the bottom of the stream.

The great white moth, which can be obtained in the summer evenings in gardens, on trees and shrubs, is a serviceable bait when dibbling for roach in the twilight.

The hawthorn fly makes its appearance on hawthorn trees, when the leaves are beginning to sprout; it is a dark-coloured fly, and is used as a bait for trout.

The honnet fly, which frequents standing grass, is an extremely good bait for chub and dace.

Common flies are, by some anglers, reckoned the best baits for dace and bleak: two or three of them at a time should be put on a No. 10 hook, for dace, and one on a No. 12 hook, for bleak.



## HORSE TAX.

FOR RIDING OR DRAWING CARRIAGES.

No.	Each Horse.	No.	Each Horse.
1	£ s. d. 1 8 9	11	3 3 6
2	2 7 3	12	3 3 6
3	2 12 3	13	3 3 9
4	2 15 0	14	3 3 9
5	2 15 9	15	3 3 9
6	2 18 0	16	3 3 9
7	2 19 9	17	3 4 0
8	2 19 9	18	3 4 6
9	3 0 9	19	3 5 0
10	3 3 6	20	3 6 0

Horses let to hire without post duty, and race-horses, each . . . £ s. d.  
 Horses rode by butchers in their trade, each . . . 1 8 9  
 Where two only are kept, the second at . . . 0 10 6  
 Horses for riding, and not exceeding thirteen hands, each . . . 1 1 0  
 One horse, used by a bailiff on a farm . . . 1 5 0  
 Other horses, thirteen hands high, and mules, each . . . 0 10 6  
 A husbandry horse, occasionally ridden by any one occupying a farm of less annual value than £100 is exempt; as are also horses employed by market gardeners in their business.

## DUTIES ON CARRIAGES.

WITH FOUR WHEELS.

No.	Per carriage for private use.	No.	Stagecoaches & postchaises.
1	£ s. d. 6 0 0	1	5 5 0
2	6 10 0	2	10 10 0
3	7 0 0	3	15 15 0
4	7 10 0	4	21 0 0
5	7 17 6	5	26 5 0
6	8 4 0	6	31 10 0
7	8 10 0	7	36 15 0
8	8 16 0	8	42 0 0
9	9 1 6	9	47 5 0

WITH TWO WHEELS.

Carriages with two wheels, each . . . £ s. d.  
 Ditto, drawn by two or more horses, or mules . . . 4 10 0  
 For every additional body used on the same carriage . . . 1 11 6  
 For every additional body . . . 3 3 0  
 Carriages let by coachmakers, without horses . . . 6 0 0

For every carriage with four wheels, being of less diameter than thirty inches each, where drawn by ponies or mules, above twelve and not exceeding thirteen hands, per annum, £3 5s.; if with less than four wheels, and the ponies not exceeding twelve hands, and not let for hire, exempt. For every carriage with four wheels, drawn by one horse and no more, per annum, £4 10s. Carriages with less than four wheels, drawn by one horse, without any metallic springs, and constructed and marked as described by Act 3 and 4, George IV., c. 39, and not exceeding £21 in value; also common stage carts, constructed for the carriage of goods, and occasionally used for riding, are exempt.

## DOGS.

For every greyhound . . . £1 0 0  
 For every hound, pointer, setting dog, spaniel, terrier, or lurcher, and for every dog, where two or more are kept, of whatever denomination they may be (except greyhounds). . . 0 14 0  
 For every other dog, where one only is kept . . . 0 8 0  
 Compounding a pack of hounds . . . 36 0 0

Farmers with farms under £100 value, and shepherds, are exempt from dogs kept for the care of the sheep.

## PROBATES OF WILLS, AND LETTERS OF ADMINISTRATION.

Above the value of	And under	With a Will.	Without a Will.
£	£	£ s.	£ s.
20	50	0 0	10s.
20	100	0 10	—
50	100	0 0	£1
100	200	2 0	3
200	300	5 0	8
300	450	8 0	11
450	600	11 0	15
600	800	15 0	22
800	1000	22 0	30
1000	1500	30 0	45
1500	2000	40 0	60
2000	3000	50 0	75
3000	4000	60 0	90
4000	5000	80 0	120
5000	6000	100 0	150
6000	7000	120 0	180
7000	8000	110 6	210
8000	9000	160 0	210
9000	10000	180 0	270

The scale continues to increase up to £1,000,000.

## DUTIES ON LEGACIES.

Of the value of £20, or upwards, out of Personal Estate, or charged upon Real Estate, &c.; and upon every share of Residue—To a Child, or Parent, or any lineal descendant, or ancestor of the deceased, £1 per cent.—To a Brother, or Sister, or their descendants, £5 per cent.—To an Uncle, or Aunt, or their descendants, £5 per cent.—To a Great Uncle, or Great Aunt, or their descendants, £5 per cent.—To any other Relation or Stranger in blood, £10 per cent.—Legacy to Husband or Wife exempt.

If the deceased died prior to the 5th of April, 1805, the duty only attaches on Personal Estates, and by a lower scale.

## RECEIPTS.

For £5 and under £10	s. d.	For £200 and under £300	s. d.
10	20 0 0	300	500 5 0
20	50 1 0	500	1000 7 6
50	100 1 6	1000 and upwards	10 0
100	200 2 6	In full of all demands	10 0

N.B.—Persons receiving the money are compelled to pay the duty.

## INTEREST TABLE AT FIVE PER CENT.

Days.	£100	£70	£60	£50	£40	£30	£20	£10	£9	£8	£7	£6	£5	£4	£3	£2	£1
100	s. d. 27 5	s. d. 19 2	s. d. 16 5	s. d. 13 8	s. d. 11 0	s. d. 8 3	s. d. 5 6	s. d. 2 9	s. d. 2 6	s. d. 2 2	s. d. 1 11	s. d. 1 8	s. d. 1 4	s. d. 1 1	s. d. 10 7	s. d. 9 3	s. d. 7 3
90	24 8	17 3	14 10	12 4	9 10	7 5	4 11	2 6	2 3	2 0	1 9	1 6	1 3	1 0	9 6	8 3	6 3
80	21 11	15 4	13 2	11 0	8 9	6 7	4 5	2 2	1 11	1 9	1 6	1 4	1 1	0 11	8 5	7 3	5 3
70	19 2	13 5	11 6	9 7	7 8	5 9	3 10	1 11	1 9	1 6	1 4	1 2	1 0	0 9	7 5	6 2	4 2
60	16 5	11 6	9 10	8 3	6 7	4 11	3 3	1 8	1 6	1 4	1 2	1 0	0 10	0 8	6 4	5 2	3 2
50	13 8	9 7	8 2	6 10	5 6	4 1	2 6	1 4	1 3	1 1	0 11	0 10	0 8	0 7	5 3	4 2	2 2
40	11 0	7 8	6 7	5 6	4 5	3 3	2 2	1 1	1 0	0 11	0 9	0 8	0 7	0 5	4 3	3 1	1 1
30	8 3	5 9	4 11	4 1	3 3	2 6	1 8	0 10	0 9	0 8	0 7	0 6	0 5	0 4	3 2	2 1	1 1
20	5 6	3 10	3 3	2 9	2 2	1 8	1 1	0 7	0 6	0 5	0 5	0 4	0 3	0 3	2 2	1 1	1 1
10	2 9	1 11	1 8	1 4	1 1	0 10	0 7	0 3	0 3	0 3	0 2	0 2	0 2	0 1	1 1	1 1	1 1

## A TABLE OF EXPENSES, INCOME, OR WAGES.

Showing what any Sum, from One Pound to One Hundred Pounds per annum, is per Calendar Month, Week, or Day.

Per Year.	Per Month.	Per Week.	Per Day.	Per Year.	Per Month.	Per Week.	Per Day.
£ s. d.	£ s. d.	£ s. d. f.	s. d. f.	£ s. d.	£ s. d.	£ s. d. f.	s. d. f.
1 0 0	is 1 8	0 0 4 2	0 0 3	11 0 0	is 0 18 4	0 4 3 0	0 7 1
1 10 0	0 2 6	0 0 7 0	0 1 0	11 11 0	0 19 3	0 4 5 1	0 7 2
2 0 0	0 3 4	0 0 9 1	0 1 1	12 0 0	1 0 0	0 4 7 2	0 8 0
2 2 0	0 3 6	0 0 9 3	0 1 2	12 12 0	1 1 0	0 4 10 0	0 8 1
2 10 0	0 4 2	0 0 11 2	0 1 3	13 0 0	1 1 8	0 5 0 0	0 8 2
3 0 0	0 5 0	0 1 1 3	0 2 0	13 13 0	1 2 9	0 5 3 0	0 9 0
3 3 0	0 5 3	0 1 2 2	0 2 0	14 0 0	1 3 4	0 5 4 2	0 9 1
3 10 0	0 5 10	0 1 4 1	0 2 1	14 14 0	1 4 6	0 5 8 0	0 9 3
4 0 0	0 6 8	0 1 6 2	0 2 2	15 0 0	1 5 0	0 5 9 0	0 10 0
4 4 0	0 7 0	0 1 7 2	0 2 3	15 15 0	1 6 3	0 6 0 2	0 10 1
4 10 0	0 7 6	0 1 8 3	0 3 0	16 0 0	1 6 8	0 6 2 0	0 10 2
5 0 0	0 8 4	0 1 11 0	0 3 1	16 16 0	1 8 0	0 6 5 2	0 11 0
5 5 0	0 8 9	0 2 0 1	0 3 2	17 0 0	1 8 4	0 6 6 2	0 11 1
5 10 0	0 9 2	0 2 1 2	0 3 3	17 17 0	1 9 9	0 6 10 2	0 11 3
6 0 0	0 10 0	0 2 3 3	0 4 0	18 0 0	1 10 0	0 6 11 2	0 11 3
6 6 0	0 10 6	0 2 5 0	0 4 1	18 18 0	1 11 6	0 7 3 0	1 0 2
6 10 0	0 10 10	0 2 6 0	0 4 1	19 0 0	1 11 8	0 7 3 0	1 0 2
7 0 0	0 11 8	0 2 8 1	0 4 2	20 0 0	1 13 4	0 7 8 0	1 1 1
7 7 0	0 12 3	0 2 10 0	0 4 3	30 0 0	2 10 0	0 11 6 0	1 7 3
7 10 0	0 12 6	0 2 10 2	0 5 0	40 0 0	3 6 8	0 15 4 2	2 2 1
8 0 0	0 13 4	0 3 1 0	0 5 1	50 0 0	4 3 4	0 19 3 0	2 9 0
8 8 0	0 14 0	0 3 2 3	0 5 2	60 0 0	5 0 0	1 3 0 3	3 3 2
8 10 0	0 14 2	0 3 3 1	0 5 2	70 0 0	5 16 8	1 6 11 0	3 10 0
9 0 0	0 15 0	0 3 5 2	0 6 0	80 0 0	6 13 4	1 10 9 0	4 4 2
9 8 0	0 15 9	0 3 7 2	0 6 1	90 0 0	7 10 0	1 14 7 1	4 11 0
10 0 0	0 16 8	0 3 10 0	0 6 2	100 0 0	8 6 8	1 18 5 2	5 5 3
10 10 0	0 17 6	0 4 0 2	0 7 0				





## SEPTEMBER

## GOLFING.

**GOLFING** is played with a club and ball. The club is from three to four feet long, according to the height and length of arm of the player. It is seen curved and massive towards the head, to give it scope, weight, and strength. This head, or knob, is formed, for strength, from some very tough wood, as beech; and as it curves and proceeds upwards, it is planed off, so as to adapt itself to the handle, to which it is very firmly glued, and tightly corded down. A want of due attention to these particulars, in the manufacturing it, will render the head liable to split and fly off by either a very hard or indirect stroke. The face of the club is farther secured by a piece of hard bone, and occasionally of ivory, at least half an inch thick. It is also loaded with from four to six ounces of lead, according to the will of the player. The handle is usually bound with cord, list, or velvet, at the pleasure of the owner. It is, however, to be remembered, that the form of the club, the materials of which it is made, and the numbers taken to the golfing ground, vary considerably, according to circumstances and to the habits of the players, the attendant caddy or caddy having usually many varieties to suit every peculiarity under which the ball may be placed; for, in many clubs, it can never be touched by the hand until holed.

The golf ball is about the size of an egg, and is made very firm. It is composed of stout leather, which, having been previously soaked in boiling water, allows of its being first very firmly sewed, and then turned inside out, leaving a small opening only by which it is very forcibly stuffed with feathers. The leather being yet wet, it contracts into a ball of the dimensions stated, but nearly as circular as that used in the game of cricket. It is subsequently painted over with several coats of white paint, in doing which it is requisite that the white lead used should be pure, and exceedingly well ground down; as well as that each coat laid on should become perfectly dry and hard before another is applied. The game is played by two or more persons, so that there be an equal number on each side; but only two balls are used, one belonging to each party, each party also striking in turn; but if the last striker does not drive his ball so far on as that of his opponent, one of his party must then strike one, or perhaps two, more; and the game is thus marked, by calling out one, two, or three more, as the case may be. If more than two are playing, the same person does not strike twice in succession; a miss is counted one. The party who puts the ball into the hole at the fewest strokes wins the game.

The grounds used for this sport vary in different parts of Scotland. Some are nearly square, in which case a hole is made at each corner; but if it be irregular in figure, it is not uncommon to place one at each angle, so that the party still traverse the whole surface, and finish at the spot from whence he started; a quarter of a mile, more or less, being usually allowed between each hole. Besides the club described, as already stated, there are others, usually carried by an attendant for each party. These are called, by way of distinction, *putters*, of which, however, there are several sorts; one being short, stiff

and heavy, similar in figure, but larger in the head, for making a steady and direct stroke when near the hole. Another, formed of iron instead of wood, is used for making a hit at a ball when very unfavourably placed; as in a rut, where the common club would be in danger of breaking. When a ball falls into a hole or rut, from which it is impossible to strike it out, the party is allowed, by a special agreement in some clubs, to take it out with his hand, and throw it up in a line with the spot, which is accounted as one, and he then strikes from where it chancers to rest; but, as already observed, this indulgence does not extend to every golfing society.

## PARTRIDGE SHOOTING.

**PARTRIDGE SHOOTING**, the reader need scarcely be told, commences with the present month, and that literally; for, as Colonel Hawker observes, "Most young sportsmen, and many old ones, fancy that nothing great can be done on the first day, without they go out as soon as they can see to distinguish a bird from a dog." This, for several reasons, the Colonel considers to be the very worst method that can be adopted; and much game as the Colonel has seen killed in a September day, he does not recollect one solitary instance of anything extraordinary being done very early in the morning, though many persons *talk* of killing ten and even twenty brace before breakfast. Colonel Hawker briefly states the great object in partridge shooting is, first to have good markers judiciously placed, and then to disperse the birds; the best way to do which, is to head your dogs, by taking an extensive circle. The second is, to make no more noise than what cannot absolutely be avoided, by doing as much by signal and whistling, and as little by hallooing, as possible. Thirdly, go first on hills to find, and drive down from them the birds, and then in vales to kill them. Fourthly, when distressed for partridges in a scarce country; at the end of the season, take a horse, and gallop from one turnip-field to another, instead of regularly slaving after inaccessible coverts. After a storm, as soon as the ground is dry, or the next day, birds will lie in a calm; and, after a calm, they will lie in windy weather. Birds are frequently as much on the listen as on the watch; and this is why, towards the end of the season, we sometimes do best in boisterous weather. — *Instructions to Young Sportsmen*, 9th Edit., 1844.

A gamekeeper of Mr. D. Grosvenor, in Dorsetshire, hearing a partridge utter a cry of distress, was attracted by the sound into a piece of oats, when the bird ran round him very much agitated; upon his looking among the corn, he saw a large snake in the midst of the infant brood, which he killed; and perceiving the body of the reptile considerably distended, he opened the belly, when, to his astonishment, two young partridges ran from their horrid prison, and joined their mother; two others were found in the snake's stomach quite dead.

## ANGLING.

ROACH, gudgeons, dace, chub, eels, tench, bleak, minnows, barbel, bream, ruffe, pike, trout, perch, and grayling, are in season.



## LIFE ASSURANCE TABLES.

THE existing British offices are about eighty in number, most of them of recent origin. The oldest is the Amicable, of London, established on the mutual principle in 1706. At the time when it was set up, no calculations as to life existed; and the conductors were accordingly obliged for many years to proceed in a great measure at random, charging the same premiums or annual payments for all ages under 45! The other offices, dating from the last century, are the following:—The Sun, 1710, proprietary; the Union, 1714, mixed; the London, 1721, mixed; the Royal Exchange, 1722, proprietary; the Equitable, 1762, mutual; the Westminster, 1792, proprietary; the Pelican, 1797, proprietary; and the Palladium, 1797, mixed. Ten were established during the first ten years of the present century:—The Globe, 1803, proprietary; the Albion, 1805, proprietary; the London Life-Association, 1806, mutual; the Provident, 1806, mixed; the Rock, 1806, mixed; the West of England, 1807, mixed; the Hope, 1807, mixed; the Eagle, 1807, mixed; the Atlas, 1808, mixed; and the Norwich Union, 1808, mutual. The rates charged by these offices are very various, but, in most cases, the charges for life-assurance are considerably within the verge of safety. Hence companies generally divide good profits, and societies realise large surpluses, which fall to be divided among the insurers, in the form of additions to the sums stated in their policies. The scales of the various offices may be classed in three grades or sets, of each of which we give a few examples.

The Economic is a proprietary office, giving three-fourths of the surplus sages or profits to the assured. It was established in 1823. In 1834, a bonus, amounting to 16 per cent. on the premiums paid, was declared; and in 1839 there was a second bonus, amounting to 31 per cent. on the premiums paid during the preceding five years. The Norwich Union, in 1816, gave a bonus of 20 per cent. on the amount of premiums deposited by the members insured previous to June, 1815; a second bonus of 24 per cent. in 1823; and a third of 25 per cent. in 1830. The Guardian is a proprietary office, in which a proportion of profits not stated is given to the assured. Established in 1821, its first division of profits was made in 1828, and a second in 1835. At each period, the bonuses averaged rather more than 28 per cent. on the amount of the premiums paid thereon during the preceding seven years. The Scottish Widows' Fund and Scottish Equitable have both declared large surpluses. At the division of the first of these highly prosperous societies, in 1825, the policies opened between 1815 (the commencement of the society) and 1820, were declared entitled to 2 per cent. for each year of their currency. In 1832, the same policies received a further addition of 34 per cent.; and at the same time those opened between 1820 and that time, were declared entitled to additions amounting to 14 per cent. per annum. In 1839, a retrospective bonus of 2 per cent. per annum was declared on all policies. The effect of these additions is, that policies for £1000, opened before 1820, at whatever age, will amount in 1845 to £1809 8s. 7d. In 1841, the Scottish Equitable made its first division of surpluses, amounting to 2 per cent. per annum on all policies of above five years' standing; so that the heirs of a person who insured £500 in 1831 (the first year of the society), would now, in the event of his decease, realise £600, and so on in proportion.

## GOVERNMENT ANNUITIES.

The tables on which the government annuities are granted have been formed, as might be expected, on the soundest principles, and are entitled to the greatest respect. They relate to four kinds of benefit—deferred annuities upon the continuance of single lives, immediate annuities upon the continuance of single lives, deferred annuities to continue for a certain term of years, and immediate annuities to continue for a certain term of years. We give one specimen, namely, the terms of an annuity of £20, payable after twenty years from the time of its purchase:—

Age of the Person at the time of Purchase upon whose Life the Annuity is to depend.	Yearly sum required.	Money to be paid down in One Sum at the time of Purchase.
15 and under 16	£ 11 6	£ 157 11 0
16 .. .. 17	10 9 0	155 17 6
17 .. .. 18	10 7 0	154 3 0
18 .. .. 19	10 4 6	152 7 0
19 .. .. 20	10 2 0	150 10 6
20 .. .. 21	9 19 6	148 13 0
21 .. .. 22	9 17 0	146 13 6
22 .. .. 23	9 14 0	144 11 6
23 .. .. 24	9 11 0	142 8 6
24 .. .. 25	9 8 0	140 2 6
25 .. .. 26	9 5 0	137 15 0
26 .. .. 27	9 1 6	135 4 6
27 .. .. 28	8 18 0	132 11 0
28 .. .. 29	8 14 0	129 15 6
29 .. .. 30	8 10 6	126 18 6
30 .. .. 31	8 6 6	124 1 0
31 .. .. 32	8 2 6	121 2 6
32 .. .. 33	7 19 0	118 6 6
33 .. .. 34	7 15 0	115 11 0
34 .. .. 35	7 11 6	112 17 0
35 .. .. 36	7 8 0	110 3 6
36 .. .. 37	7 4 6	107 11 0
37 .. .. 38	7 1 0	104 19 0
38 .. .. 39	6 17 6	102 7 6
39 .. .. 40	6 14 0	99 15 0
40 .. .. 41	6 10 6	97 1 6
41 .. .. 42	6 6 6	94 5 6
42 .. .. 43	6 2 6	91 7 0
43 .. .. 44	5 18 6	88 6 0
44 .. .. 45	5 14 6	85 5 6

## SCALE OF LOW GRADE.

	20	25	30	35	40	45	50	55	Total Premiums between 20 and 60.
Aberdeen Assurance Company	£1 14 7	£1 18 1	£2 2 0	£2 7 3	£2 14 5	£3 4 6	£3 19 8	£4 19 0	£129 7 9
Standard Life Assurance Company, Edinburgh	1 12 10	1 17 6	2 2 11	2 9 1	2 17 2	3 6 5	3 19 8	5 0 0	
Scottish Provident Institution (mutual)	1 15 8	1 18 0	2 1 6	2 6 10	2 14 9	3 5 9	4 1 7	5 1 11	131 8 8

## SCALE OF MIDDLE GRADE.

	20	25	30	35	40	45	50	55	Total Premiums between 20 and 60.
Economic Company, London	£1 14 7	£1 19 0	£2 4 3	£2 10 11	£2 19 9	£3 11 9	£4 8 0	£5 10 3	£141 12 6
Norwich Union Society	1 19 6	2 3 8	2 8 10	2 14 10	3 2 0	3 11 0	4 6 0	5 5 3	142 10 4
Guardian (mixed)	2 1 0	2 5 4	2 10 7	2 17 0	3 5 0	3 14 11	4 8 0	5 4 8	146 3 3
Scot. Widows' Fund									
Scot. Equit. Societies	2 1 6	2 5 10	2 11 1	2 17 6	3 5 6	3 15 6	4 8 4	5 4 2	146 12 5

## SCALE OF HIGH GRADE.

	20	25	30	35	40	45	50	55	Total Premiums between 20 and 60.
Globe Company	£2 3 7	£2 8 1	£2 13 5	£2 19 10	£3 7 11	£3 17 11	£4 10 8	£5 6 4	£151 5 2
Sun Company (mixed)	1 16 11	2 2 6	2 9 2	2 16 8	3 6 6	3 17 8	4 14 2	5 19 11	152 16 6
Amicable Society (London)	2 0 6	2 5 6	2 10 6	2 17 0	3 5 0	3 18 6	4 16 6	5 18 0	155 3 6

## HIGH WATER TABLE.

SHOWING the difference of Time of High Water between London and the principal Outports of the United Kingdom, as well as a few ports on the opposite coast

	H. M.		H. M.		H. M.		H. M.
Aberdeen	sub 0 55	Douglas	sub 2 56	Kingsdown Harbour	sub 2 54	Rye Harbour	sub 3 40
Alderney Pier	add 4 39	Dover	sub 2 56	Kinsale Harbour	sub 1 54	Scarborough	add 2 9
Antwerp	sub 3 36	Dublin	sub 2 54	Leith	sub 0 16	Scilly Islands	sub 2 24
Ayr	sub 2 41	Dundee	add 0 29	Lerwick Harbour	sub 4 6	Shannon Mouth	sub 1 41
Bantry Bay	add 1 40	Dunkirk	sub 2 26	Liverpool	sub 2 44	Sligo Bay	sub 3 53
Barnstaple	sub 3 45	Exmouth	add 4 49	Margate	sub 2 2	Southampton	sub 3 26
Berwick	sub 0 12	Falmouth	sub 3 9	Milford Haven	add 3 33	Southend and Sheerness	sub 1 27
Boulogne	sub 2 40	Flushing	sub 0 46	Montrose	sub 0 38	Spurn Point, the	add 3 14
Brest	add 1 40	Fort George	sub 2 6	Morlaix	add 2 59	St. Ives	sub 2 14
Brighton	sub 2 28	Galway	add 1 49	Mount's Bay	sub 2 34	St. Malo	sub 3 34
Bristol	add 5 10	Gravelines	sub 2 26	Newhaven	sub 2 15	Stromness	sub 5 6
Calais	sub 2 36	Greenock	sub 2 41	Newport (Isle of Wight)	sub 6 10	Sunderland	sub 0 54
Cape Clear	add 1 54	Guernsey Pier	sub 4 24	New Shoreham	sub 2 17	Tay Bar	sub 0 1
Cardigan Bar	add 4 39	Hartlepool	sub 1 24	Orfordness	sub 3 36	Texel Road	sub 5 6
Cardarthen Bay	sub 5 52	Havre de Grace	sub 4 14	Ostend	sub 1 56	Torbay	add 3 54
Cherbourg	sub 5 21	Heligoland	sub 3 6	Pembroke Dockyard	add 3 49	Tynemouth Bar	sub 0 41
Cork Harbour	sub 2 24	Hellevoet Sluys	sub 0 9	Plymouth Dockyard	sub 3 27	Waterford	sub 3 4
Cowes	sub 3 21	Holyhead Harbour	sub 3 41	Port Glasgow	sub 2 41	Wells Harbour	sub 3 54
Cromarty	sub 2 21	Hull	sub 3 54	Port Patrick	sub 3 26	West Scheldt, entrance	sub 1 31
Cuxhaven	sub 1 6	Hythe	sub 3 21	Portsmouth Harbour	sub 2 26	Whitby	sub 1 24
Dartmouth	add 3 54	Ilfracombe	add 3 39	Ramsay Harbour	sub 2 56	Wigton Bay	sub 3 26
Donegal Bar	sub 2 59	Jersey (St. Albys)	sub 4 4	Ramsgate Harbour	sub 2 46	Yarmouth Road	sub 5 35

To find the time of High Water at either of the above places, it will be necessary to add or subtract the numbers in the above table to or from the time of High Water at London, which will be found in the Calendar given for the day required.





OCTOBER.

## HUNTING THE STAG.

THE accompanying sketch is to illustrate the cheering scene described by Somerville in his poem of "The Chase"—"Stag-hunting is little known to our metropolitan sportsmen, but as connected with the mimic scene of hunting, such as the Queen's and one or two others. Where it is followed in the wild natural state, according with the habit of the animal and the scenery congenial to it, it is at once noble and cheering, full of daring exploit and courage; and it is the last link of the primitive chase brought down by our forefathers. The deer has suffered no mutilation; its antlers show him to be a stag of full head, therefore arrived at maturity; and from the determined manner of his going, he is likely to lead his followers "through wood and brake, o'er moss and moor," a pretty good chevvy. There are few hunting establishments now such as this describes, where the animal is drawn for and found in his wild state. One reason may be that they are not numerous enough to afford sport, the forest and wild districts no longer being so extensive as formerly; and we have lost the real stag hound, which, of course, robs it of much of its real character. But it is a noble sport, full of mimic war and exhilarating scenes.

The following poetical sketch of the Hunted Stag is very beautiful:—

What sounds are on the mountain hlast?  
Like bullet from the arbalest,  
Was it the hunted quarry past  
Right up Ben-ledi's side?  
So near, so rapidly, he dash'd,  
Yon lichen'd bough has scarcely plash'd  
Into the torrent's tide.  
Ay!—the good hound may bay beneath  
The hunter wind his horn;  
He dared ye through the flooded Teith  
As a warrior in his scorn!  
Dash the red rowel in the steed,  
Spur, laggards, while ye may!  
St. Hubert's staff to a stripling reed,  
He dies no death to-day!  
"Forward!" nay, waste not idle breath,  
Gallants ye win no greenwood wreath;  
His antlers dance above the heath,  
Like chieftain's plumed helm;  
Right onward for the western peak,  
Where breaks the sky in one white streak,  
See, Isabel, in bold relief,  
To Fancy's eye, Glenartney's chief,  
Guarding his ancient realm.  
So motionless, so noiseless there,  
His foot on rock, his head in air,  
Like sculptor's breathing stone!  
Then, snorting from the rapid race,  
Snuffs the free air a moment's space,  
Glares grimly on the baffled chase,  
And seeks the covert lone.

Hunting has been a favourite sport in Britain for many centuries. Dionysius (A.C. 50) tells us that the North Britons lived, in great part, upon

the food they procured by hunting. Strabo states that the dogs bred in Britain were highly esteemed on the Continent, on account of their excellent qualities for hunting; and Cæsar tells us that venison constituted a great portion of the food of the Britons, who did not eat hares. Hunting was also in ancient times a royal and noble sport: Alfred the Great hunted at twelve years of age; Athelstan, Edward the Confessor, Harold, William the Conqueror, William Rufus, and John were all good huntsmen; Edward II. reduced hunting to a science, and established rules for its practice; Henry IV. appointed a *master of the game*; Edward III. hunted with sixty couples of stag-bounds; Elizabeth was a famous huntswoman; and James I. preferred hunting to hawking or shooting. The bishops and abbots of the middle ages hunted with great state. Ladies also joined in the chase from the earliest times; and a lady's hunting-dress in the fifteenth century scarcely differed from the riding habit of the present day. Even the citizens of London anciently had their stag-hunt. In short, in former times, hunting was almost the sole business of life among the English squires; and though their tastes are now much varied, this original pastime, in all its forms, continues to be eagerly followed.

Stag-hunting was formerly very perilous, because, when the stag turned to bay, the ancient hunter went in upon, and killed or disabled, the desperate stag. At certain times of the year, this was deemed dangerous, a wound from the stag's horn being considered poisonous, and more to be feared than one from the tusks of the boar: hence,—

"If thou be hurt with hart, it brings thee to thy hier,  
But harber's hand will hoar's hurt heal, thereof thou need'st not fear."

SIR WALTER SCOTT.

## PHEASANT SHOOTING.

ON the 1st of October, that beautiful bird, the Pheasant, becomes a legitimate object of pursuit, though many persons postpone the commencement of pheasant shooting till November, and wisely so, since these birds, generally speaking, are not sufficiently grown by the first-named period. The pheasant is common in almost all the southern parts of the old Continent, whence it was originally introduced into this country; but, in America, the true pheasant is not known.

The pheasant is a bird of slow flight, presenting a large mark, and is easily killed by the experienced sportsman; but we are doubtful whether the tyro does not stand a better chance when a twiddling snipe rises before him. The tremendous hustle and whizzing which a pheasant makes in getting on the wing, so agitates the inexperienced shooter, that he not only pulls the trigger too soon, but generally without taking aim, and has to endure the mortification of seeing the bird fly away unhurt. A cock pheasant, when pushed from a bush or thicket, generally rises perpendicularly, till he has cleared every obstacle, before he goes off horizontally; the moment for shooting is when he assumes the horizontal direction; if the bird be fired at while it is rising, nineteen times out of twenty, the shot will be thrown below the pheasant. The hen pheasant, when pushed, seldom rises so high as the cock, or yet takes so long a flight.

## ANGLING.

TENCH, gudgeons, roach, chub, dace, minnows, bleak, pike, trout, and grayling, are in season; trolling or bottom fishing for chub and roach may be successful; fly-fishing is generally over.

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# AN ANALYTICAL ABSTRACT OF AN ACT FOR THE FURTHER AMENDMENT OF THE LAWS RELATING TO THE POOR IN ENGLAND. 7 & 8 VICTORIÆ, CAP. 101.

- Section 2. Empowers one justice of the peace to act against putative father on application of mother of bastard child.
3. Empowers the justices at petty sessions to enforce payment from father of bastard child to the mother, or whoever has custody of the same.
4. Application for justices' order to be made within forty days from summons, and costs to be paid as justices shall see fit; and gives appeal to quarter sessions for the putative father.
5. Orders money under the order to be paid to the mother, or to a person appointed by the justices; and that order shall expire when child has attained thirteen years of age, or if the mother marries.
6. The mother is punishable for neglect or desertion of her child. 5 Geo. IV., c. 83, referred to.
7. Officers of parishes or unions are not to receive money under the order, or to interfere in any respect. This section further prescribes the proceedings to be taken against the putative father in case of death or incapacity of the mother.
8. Fixes the penalties for promoting marriage of a mother of a bastard improperly; for misapplying monies received under this act; or for maltreating a bastard child.
9. Existing orders at the time of passing of this act are not to be affected: but no order made before 14th of August, 1834, shall remain valid after 1st January, 1849.
10. Orders made by justices acting in two adjoining counties shall be valid, although not made in the county in which the parish is situate.
11. Clerks to justices annually must make a return of summonses, orders, &c., to the clerks of the peace, who shall transmit copies thereof to the Secretary of State, with lists of appeals.
12. The Poor-law Commissioners are to prescribe the duties of poor apprentices, and masters neglecting to fulfil them liable to penalty not exceeding 20*l.*; and in futuro the board of guardians are to bind poor children apprentices instead of the overseers.
13. By this clause compulsory apprenticeship is abolished; repealing 43 Eliz. c. 2, and 8 & 9 Wm. III. c. 3.
14. Repeals so much of 4 & 5 Wm. IV., c. 76, as relates to the number of votes of owners and rate-payers; also 58 Geo. III. c. 69, to the like extent. And enacts that owners of property and rate-payers to vote according to the scale therein set forth.
15. Contains the regulations as to votes of owners and of proxies.
16. Provides that so much of 4 & 5 Wm. IV., as relates to not voting shall extend only to poor-rates.
17. The annual election of guardians shall take place within forty days after the 25th of March in every year.
18. The number of guardians may be altered with reference to population, &c.
19. Parishes may be divided into wards, whose population is more than 20,000, by last census.
20. Regulates the qualifications of guardians in wards.
21. Restricts voting in wards, and limits number of votes in certain cases.
22. Forbids separate overseers for townships not hitherto possessing them.
23. Declares the orders of the Poor-law Commissioners valid, notwithstanding the separate appointment of overseers.
24. Justices who reside in extra-parochial places or parishes within unions are to be ex-officio guardians of such parishes.
25. Provides that the relief of married women, whose husbands are at sea, or in custody, or in a lunatic asylum, &c., shall be subject to the same conditions as if they were widows.
26. Gives relief to widows in certain cases, with a proviso.
27. Expenses incurred for insane paupers may be levied off their estates where considerable.
28. Guardians under local acts to have powers with respect to insane poor.
29. Guardians to apply money raised for emigration, according to Act 4 & 5 Wm. IV. c. 76.
30. Cost of obtaining site of workhouses in the metropolitan police district, to be charged on the poor-rates.
31. Provides for the funerals of paupers.
32. Poor-law Commissioners may combine parishes and unions into districts for audit of accounts; and further prescribes the election of district auditors, and their powers and duties.
33. The rate-book, &c., must be made up seven days before the audit day, under a penalty of 40*s.*; and due notice of time and place of audit shall be posted up by overseer, under penalty of 40*s.*; and the like penalty for refusing inspection of books by rate-payers.
34. Balances found before the passing of this Act may be discharged.
35. Certiorari allowed for auditors' allowances or disallowances.
36. Persons aggrieved may apply to the Poor-law Commissioners upon a charge, &c., who may issue orders thereupon and determine the question.
37. Takes away the powers of justices to audit; existing district auditors may nevertheless be retained, with a proviso for the separating and uniting of parishes.
38. Accounts may be rendered half-yearly if Commissioners think proper.
39. Relates to the taxation and allowance of law bills.
40. Parishes and unions may, within certain limits, be combined into school districts.
41. Districts for providing asylums for houseless poor may be formed in the towns specified in Schedule (B).
42. Regulates the constitution of the district boards for schools and asylums.
43. Defines the powers and duties of district boards.
44. Gives similar powers to district board for purchasing and hire of land for building school or asylum; and all sums to be raised for providing schools or asylums not to exceed one-fifth part of the average annual rates.
45. Empowers district board to hold property of the district as a corporation.
46. Relates to the payment of contributions to district boards.
47. Arranges for the distribution of charges for schools.
48. In like manner the distribution of charges for asylums.
49. Directs the appointment of auditors for district boards and the plan of their accounts, subject to direction of commissioners.
50. Empowers guardians to visit and inspect asylums.
51. Permits children to be sent to district schools from parishes and unions not combined, but not distant more than twenty miles.
52. Repeals the Acts 7 Geo. III. c. 39 and 2 Geo. III. c. 22.
53. Particularises the class of destitute poor to be relieved in such asylum; refers to 5 Geo. IV. c. 83; directs the mode of admission into the asylum; and prescribes regulations with respect to poor persons admitted into such asylums.
54. Enumerates the liabilities of persons relieved in such asylums, and cites the 55 Geo. III. c. 137.
55. Inflicts the penalty for returning after removal, according to the vagrant act; 5 Geo. IV., c. 83.
56. Declares the workhouse to be situate in every parish of an union, &c.
57. Orders the committal of offenders in workhouses to the gaol of the place to which the offenders belong; and refers to 27 Geo. II. c. 3.
58. Provides for the punishment of persons in workhouses for misconduct, by committal to gaol.
59. Gives power to guardians to order certain civil and criminal proceedings to be paid out of poor-rates.
60. Expenses of jury lists, 6 Geo. IV., c. 50, and boundaries of parishes may be paid out of poor-rates.
61. Collectors appointed by guardians may be appointed to perform the duties of assistant overseers, 2 and 3 Vict., c. 81, and 5 Wm. IV., c. 76. 59 Geo. III., c. 12 referred to.
62. Poor law Commissioners, on application of board of guardians, may direct appointment of paid collector of poor-rates.
63. Penalty not exceeding £20 on overseers neglecting to obtain a supply of funds for the relief of the poor.
64. Directs in what manner guardians under local acts shall conduct their proceedings: that parishes under local acts, with a population exceeding 20,000, are not to be united without consent of guardians, and what exceptions are to be made as to vagrant and audit districts.
65. Parishes, with a population exceeding 20,000 under local acts, having adopted the provisions of 1 and 2 Wm. IV., c. 60, and parishes in the metropolitan district having auditors, not to be included in any district for audit of accounts.
66. Poor-law Commissioners may separate parishes from unions, or add parishes to unions, without the consent of the guardians of the union.
67. Repeals the 55 Geo. III., c. 137, s. 7, as to notices of contracts for supplying workhouses.
68. Clerks and officers may conduct proceedings before justices at petty sessions on behalf of boards of guardians, although not certified attornies.
69. Guardians, &c., may make a certain certificate, which may be received in evidence in courts of justice, (and herein the form is given of this certificate).
70. Justices at petty sessions, or out of sessions, may summon witnesses, and compel them to attend and give evidence.
71. Rules, &c., printed by the printer authorised by her Majesty to be received in evidence.
72. Evidence in legal proceedings of the transmission of the commissioners, their rules, &c.
73. Conveyances, &c., for workhouses to be good, although not enrolled according to 9 Geo. II., c. 36.
74. Construction of act 5 & 6 Vict. c. 57.
75. Act limited to England and Wales.
76. When act to operate.

## COUNTIES.

1. **FREEHOLDERS.**—Of inheritance of the yearly value of 40*s.* above rents and charges.

For life or lives of the yearly value of £10. above rents and charges.

For life or lives of the yearly value of 40*s.* above rents and charges, occupied by such freeholders; or, although not occupied, which would have entitled them to vote on the 7th of June, 1832; or acquired after that time by marriage, devise, or by promotion to a benefice or office.

Freeholds for life may be acquired in right of a benefice or an office—as clergymen, parish clerks, dissenting ministers, &c., with salaries derived from lands, the freehold of which is in the voter, or in other parties subject to a trust, in writing, entitling the voter to receive the salary either for life, or for an indefinite period: they may also arise from tithes, rent-charges, &c.

2. **COPYHOLDERS.**—For life or larger estate of copyhold, or any other tenure except freehold, of the yearly value of £10 above rents and charges.

3. **LEASEHOLDERS.**—Lessee of £10. clear yearly value, above rents and charges, for not less than sixty years, occupied or not.

Lessee of £50 clear yearly value, above rents and charges, for not less than twenty years.

Assignee of the residue of such terms.

Sub-lessee, or his assignee, of such terms, if occupying.

Tenant actually occupying lands, &c., at yearly rent not less than £50.

Freeholders and copyholders must have been in possession or in receipt of their profits for six calendar months, and leaseholders for twelve months, and tenants must have occupied twelve months before the last day of July in each year—except in cases of descent, devise, marriage, or promotion.

## RIGHT OF VOTING.

### CITIES AND BOROUGHES.

1. Owners or tenants actually occupying any house, shop, &c., of £10 yearly value; or of such value, together with land of which they are owners, or which they hold under the same landlord; or of premises held in immediate succession.

Joint occupiers of such premises, and of such value, as shall give £10 yearly to each occupier. The premises must be occupied for twelve calendar months, and the voter have resided for six months, before the last day of July, in the borough, or within seven miles. He must have been rated for the poor during such twelve months, and must have paid the rates due to the 6th of April preceding on or before the 20th July. If persons otherwise qualified are not rated, a claim may be made upon the overseers to put their names on the rate; and thereupon, on payment or tender of the rates, they are to be deemed rated from the date of the then existing rate.

2. Freemen made after the 1st of March, 1831, if by any other right than birth or servitude, are not to be registered; nor in right of birth, unless it was derived from a freeman entitled before that time, or thereafter becoming free by servitude.

3. A saving of the rights of persons otherwise entitled to vote on the 7th of June, 1832.

### CITIES AND TOWNS COUNTIES OF THEMSELVES.

1. Freeholders—as for Counties.

2. Burgage tenants in possession of rents and profits for twelve months (unless qualified by descent, marriage, devise, or promotion), and resident for six months before the last day of July within the city, or seven miles thereof.





NOVEMBER

## FOX HUNTING

TALLY HO! Tally ho! all unconsciously shouts the reader as he glances at our sketch of the thoroughly English sport of fox-hunting. Tally ho! echo we; and the cheerful sound wakes a feeling, strong, fresh, and invigorating, in the hearts of all true lovers of the chase.

See how he steals along! Now, if he lasts forty-five minutes, with huntsman and hounds at him upon such good terms at starting, and then a check should come, the odds are in favour of pug. Note the pace of the fox!—it is extraordinary—he does not seem to go fast, or to be alarmed, or in a hurry; for the first field or so you fancy that the leading hounds would pick him up, but the nearest hedge-row settles that point; you lose sight of him there, and the chances are that you do not see him again that day, if you have anything less than a first-rate horse. With a good scent for the first half-hour, you have little to think of but to keep as near as you can to your hounds, without distressing your horse, for at this season especially foxes travel a long way from home; they do not ring about or wait, and if halted at one point quickly make for another. The first thirty minutes weed off the majority of a large field, and then begin the joys of the chase; pace is settled down to a steady rate when horse and hound can live together, and the fury of the outset has ceased.

But who shall tell of fox-hunting or Melton, while Nimrod himself is in the field? Hark to him:—

“The pencil of a painter is now wanting; and unless the painter should be a sportsman, even his pencil would be worth little. What a country is before him; what a panorama does it present! Not a field of less than forty—some a hundred acres—and no more signs of the plough than in the wilds of Siberia. See the hounds in a body that might be covered by a damask table-cloth—every stern down, and every head up, for there is no need of stooping, the scent lying breast-high. But the crash! the music! how to describe these! Reader, there is no crash now, and not much music. It is the tinker that makes great noise over a little work; but at the pace these hounds are going there is no time for babbling. Perchance one hound in five may throw his tongue as he goes to inform his comrades, as it were, that the villain is on before them, and most musically do the light notes of Vocal and Venus fall on the ear of those who may be within reach to catch them. But who is so fortunate in this second hurst, nearly as terrible as the first? Our fancy supplies us again, and we think we could name them all. If we look to the left, nearly abreast of the pack, we see six men going gallantly, and quite as straight as the hounds themselves are going; and on the right are four more, riding equally well, though the former have rather the best of it, owing to having had the inside of the hounds at the last two turns, which must be placed to the chapter of accidents. A short way in the rear, by no means too much so to enjoy this brilliant run, are the rest of the *élite* of the field, who had come up at the first check; and a few who, thanks to the goodness of their steeds, and their determination to be with the hounds, appear as if dropped from the clouds. Some, however, begin to show symptoms of distress. Two horses are seen loose in the distance—a report is flying about that one of the field is badly hurt, and something is heard of a collar-bone being broken, others say it is a leg; but the pace is too good to inquire. A cracking of rails is now heard, and one gentleman's horse is to be seen resting, nearly balanced, across one of them, his rider being on his back in the ditch, which is on the landing side. ‘Who is he!’ says Lord Brudenel to Jack Stevens. ‘Can’t tell, my lord; but I thought it was a queerish place when I came o’er it before him.’”

Have we led your imagination, good reader, into the sport! If so, we

can but wish you a good place in the fray, and the ability to keep it.

In 1793, a fox in the neighbourhood of Imber, Wilts, being hard run, took shelter under the covering of a well, and by the endeavours used to extricate him thence, was precipitated to the bottom, a depth of one hundred feet: the bucket was let down; he laid hold of it, and was drawn up some way, when he again fell: the bucket being let down a second time, he was drawn up safe; after which he was turned off, and beat the hounds.

Dr. Goldsmith asserts, that a bitch fox, which it appears had but one cub, was unkenelled by the hounds, near Cbeilmsford, in Essex, when the animal, braving every danger, took the cub in her mouth and ran with it for some miles. At length being driven through a farm-yard, she was attacked by a mastiff, and obliged to drop her cub, which was taken up by the farmer. She, however, beat her pursuers, and got clear off.

In the year 1785, the hounds of Mr. B. Dudley frequently had a good drag on the banks of the Crouch river in Essex, but without finding their fox. As, however, they were one morning drawing the remote church-yard of Crickseth, which was overgrown with thick bushes, a labouring man informed the huntsman that he was too late, as renard had crept off when he heard the hounds challenge about a quarter of an hour ago. In consequence of this information the hounds chopped in different spots for several miles; but a fall of sleet prevented their reaching the fox that day. A week or two afterwards he was found in an adjoining copse, and after a lingering run of upwards of two hours he shaped his course to the churchyard in question. The hounds reached the place and came to a check; upon which a bitch, named Gaylass, raised herself against an old buttress of the church, and gave tongue. The master of the hounds dismounted, and, with another of the gentlemen, ascended the buttress up to the roof of the church, which was very low, and thickly covered with ivy, amongst which they found several fresh kennels. Some of the sportsmen below lifted several of the hounds upon the roof, where they were instantly in full cry, and where the fox was immediately killed.

The late Mr. Selby had a tame fox that used to run with his fox-hounds; and this circumstance had not the effect of preventing the dogs from pursuing their chase in the fields, in which, it would appear, the tame fox eagerly joined.

In 1805, Mr. Salter, of Rickmansworth, Herts, had a fox that lay constantly in the kennel with his harriers; he was completely master of the feeding-yard, not suffering a hound to eat near him until he was satisfied himself.

In the year 1813, a curious exhibition took place in the Hundred House Meadow, Witley:—Five wild rabbits were singly turned down, at an assigned distance, before a dog-fox, trained by Mr. C. Tearne, of Stockton, Worcestershire; and, after an excellent course, were severally killed by renard in very capital style.

At the Golden Bear, Reading, some years ago, a young fox had been placed in a wheel, and taught to turn the jack. After some time, he escaped and regained his native woods. Here he met the fate common to his species; he was pursued by the hounds, and, in his flight, ran through the town of Reading, and, springing over the half-door of the kitchen, jumped into the wheel and resumed his old occupation, in the very place where he had formerly been brought up, and thus saved his life.

## ANGLING.

ROACH, pike, chub, trout, and grayling, are the only fish in season. The baits used in January will do for this month.



## GENERAL POSTAL REGULATIONS.

**HEADS OF DEPARTMENTS.**—Post-master General, Earl Lonsdale, K. C. B.; Secretary, Lieut. Col. W. L. Maberly; Assistant Secretary, S. Lawrenco, Esq.; Chief Clerk to the Secretary, J. Campbell, Esq.; Solicitor, Mark B. Peacock, Esq.; Surveyor and Superintendent of Mail Conveyance and Guards, G. Slow, Esq.; Inspector of Ship Letters, G. Huddleston, Esq.; Inspector of the Dead Letter Office, C. Newton, Esq.; President of the Money Order Office, W. Barth, Esq.; Superintending-President of the Inland, and Foreign Department, W. Bokenham, Esq.; Inspector of the Carriers (General post), F. Kelly, Esq.; President of the London District Post, R. Smith, Esq.

**INLAND REGULATIONS:—RATES OF POSTAGE:—**All letters from one part of Great Britain to another (including the Local Penny Posts and the London Twopenny Post), are charged by weight as follows, if prepaid:—

Not exceeding $\frac{1}{2}$ an ounce .....	1d.
Exceeding $\frac{1}{2}$ an ounce, and not exceeding 1 ounce ..	2d.
1 ounce .....	2 ounces .. 4d.
2 ounces .....	3 ounces .. 6d.

and so on at the rate of 2d for every additional oz. or fraction of an oz.

Unpaid and unstamped letters, are charged double postage on delivery; letters insufficiently paid or stamped, are charged double the amount of such such insufficiency on delivery.

Letters or packets exceeding 16ozs. in weight not forwarded—except, Parliamentary petitions and addresses to Her Majesty, Parliamentary proceedings, Letters or packets addressed to, or received from, places beyond sea, Letters or packets to and from public departments, and public officers heretofore franking by virtue of their office.

## PRICES OF STAMPS.

At a POST OFFICE.—Labels, 1d. and 2d. each; Covers, 2s. 3d. per two dozen.

At a STAMP DISTRIBUTOR'S, as above, or as follows:—Half-ream, or 240 Penny Covers, 1l. 2s. 4d.—Penny Envelopes, 1l. 1s. 9d.—Quarter-ream, or 120 Twopenny Covers, 1l. 1s. 4d.—Twopenny Envelopes, 1l. 1s. 1d.

At the STAMP OFFICES in London, Dublin, and Edinburgh, as above, or as follows:—2 Reams, or 960 Penny Envelopes, 4l. 7s.—Penny Envelopes, 4l. 5s. 1 Ream, or 480 Twopenny Covers, 4l. 3s. 6d. Twopenny Envelopes, 4l. 2s. 6d. Covers may be had at these prices, either in sheets, or cut ready for use. Envelopes in sheets only, and consequently not made up. No one, unless duly licensed, is authorised to sell postage stamps.

The Penny Stamp carries half an ounce (inland), the Twopenny Stamp one ounce. For weights exceeding one ounce, use the proper number of labels, either alone or in combination with the Stamps of the Covers or Envelopes.

## HOURS OF POSTING.

**FOR THE EVENING MAILS:—**The receiving houses close at 5 30 p.m. Letter carriers ring bells and take letters in the streets to go by the evening mails from 4 30 to 5 30 p.m., (with such letter one penny fee is charged as a perquisite to the postman). Letters are received for the evening's dispatch at the Branch Post-offices at Charing-cross, Old Cavendish Street, and 108, Blackman Street; Southwark until 6 p.m., and with a fee of one penny, which must be paid by affixing a stamp to the letter, until 6 45 p.m. At the Branch post-office in Lombard-street the box remains open without additional fee until 6 p.m., and until 7 p.m. by affixing a penny stamp. At the General Post-office in St. Martin's-le-grand until 6, free, and 7 by payment of the extra charge as at Lombard-street. From 7 to half-past 7 p.m., letters may be posted there upon payment of a fee of sixpence each, which must, as well as the postage, be prepaid. Letters intended to pass by outward mails to foreign parts must be posted at the above hours. In the case of Colonial and ship-letters, however, there is this difference:—The "late" fee of one penny may be paid either in money or by means of a stamp affixed to the letter. Letters (overland) to India via Marseilles are taken in at the Branch offices as follows:—Tuesdays and Fridays at Charing-cross, Old Cavendish-street, and 108, Blackman-street, Southwark, until 8 p.m.; at the office in Lombard-street, and the General Post-office in St. Martin's-le-grand, only, from 10 p.m. until 11 p.m. on payment of a fee of one penny, and from 11 until 11 30 on payment of a fee of sixpence.

**FOR THE MORNING MAILS:—**The letter boxes for the post towns, to which bags are made up and conveyed by morning mails, daily, are open as follows:—At the receiving houses throughout the metropolis until 7 a.m. for newspapers, and 8 a.m. for letters; at the Branch offices, Charing-cross, Old Cavendish-street, and 108, Blackman-street, Southwark, for newspapers until 7 30 a.m., and for letters until 8 a.m. At the General Post-office and the Branch office in Lombard-street the boxes are closed for newspapers at a quarter before 8 a.m. and for letters at half-past 8 a.m.

N.B. Newspapers for the evening mails must be put into the receiving houses before 5 p.m., the Branch offices before 5 30, or General Post-office before 6 p.m. They may also be posted by letter carriers ringing bells from 4 30 p.m. to 5 30 p.m. with the penny fee to the postman. From 6 p.m. to 7 30 they may be put into the office on the left hand side of the portico, and at the nearest window to it on the western front on payment of one halfpenny late fee. Subjoined is a list—the latest officially published—of the post towns to which bags are made up per morning mails.

## MORNING MAILS.

Abingdon	Burton, W.	Fareham
Accrington	Cambridge	Fairford
Andover Road	Canterbury	Farringdon
Appleby	Carlisle	Fenny Stratford
Banbury	Carnarvon	Faversham
Bangor	Catham	Gateshead
Barnsley	Chepstow	Godalming
Bath	Cheltenham	Gloucester
Beaumont	Chester	Gosport
Beaumaris	Chester-le-street	Gravesend
Belper	Chippingham	Guildford
Berwick	Cirencester	Halifax
Berkhampstead	Clitheroe	Haydon Bridge
Birmingham	Cockermouth	Hemel Hempstead
Bishops Stortford	Conway	Hertford
Blackburn	Covey	Hexham
Bradford, Yorkshire	Coves	Highworth
Brackley	Cuckfield	Hoddesdon
Brampton	Darlington	Holyhead
Brough	Dartford	Holywell
Bristol	Daventry	Huddersfield
Brighton	Derby	Kendal
Buckingham	Dover	Lancaster
Burnley	Durham	Leamington

Lechlade	Ramsgate	Towcester
Leighton Buzzard	Reading	Tring
Leeds	Reigate	Ulverston
Leicester	Ricknansworth	Uxbridge
Lewes	Rochdale	Wakefield
Liverpool	Rochester	Wallingford
Maidenhead	Rotherham	Walsall
Maidstone	Rugby	Ware
Manchester	Ryde	Warrington
Margate	Saffron Walden	Warwick
Maryport	Sheffield	Watford
Milnborne	Sittingbourne	Weedon
Mold	Shoreham	Whitehaven
Monmouth	Slough	Wigan
Nottingham	Southampton	Wigton
Newcastle Tyne	South Shields	Winchester
Newport, I. of W.	St. Asaph	Windsor
Newport Pagnell	St. Albans	Wolverhampton
Northampton	Stafford	Workington
North Shields	Stockport	Worthing
Oxford	Stone	York
Penkridge	Stroud	
Penrith	Stony Stratford	
Portsmouth	Stratford-on-Avon	
Preston	Sunderland	All Ireland
Preston Brook	Swindon	All Scotland

## LETTER-RATES TO PLACES BEYOND THE LIMITS OF THE UNITED KINGDOM.

## WEST INDIA AND AMERICA RATES.

PACKET RATES, paying the Postage optional, excepting those places marked \*, which must be paid by the Under  $\frac{1}{2}$  oz.

North America, viz. 1.—Quebec, Montreal, and all parts of Canada; Nova Scotia (Halifax excepted), Prince Edward's Island, and New Brunswick, conveyed direct by the contract packets (being one shilling packet postage, and twopenny uniform internal colonial rate)	s. d.
*If forwarded <i>via</i> Boston, the above places are charged	I 2
Halifax, Newfoundland, *New York, the Bermudas, and the *United States ..	I 0
British West Indies, &c., including Kingston (Jamaica), Barbadoes, New Providence, Turk's Island, Bahamas, Antigua, Barbice, Carriacou, Demerara, Dominica, Grenada, St. Lucia, Monserrat, Nevis, St. Vincent's, St. Kitt's, Tobago, Tortola, and Trinidad ..	1 0
Foreign West Indies, including *Gadalupe, *Martinique, *St. Thomas, *Curaçoa, *Surinam, *St. Martin's, *St. Croix, and Porto Rico ..	1 5
Jamaica (all the island, except the packet-port, Kingston) ..	I 2

Letters to the West Indies are forwarded at the above uniform rates from all parts of the United Kingdom.

All letters addressed to North America will be considered as intended to be forwarded by the contract steam packets, and charged accordingly, unless the words "By Private Ship" be plainly written on them.

† Letters for Canada, conveyed by the North American packets from Liverpool, if specially addressed "via Boston," will be forwarded by that route, in the United States mail, provided the packet postage is paid in advance.

## SHIP LETTER RATES.

The single uniform rate on letters between the United Kingdom and places beyond sea, when conveyed by private ships, is 8d., in whatever part of the United Kingdom the letters may be posted or delivered. This is the rate now taken on letters between the United Kingdom and the East Indies, &c. &c., when conveyed by private ship, the former distinction between these and other descriptions of ship letters having been abolished.

The rates of postage on "ship" as on other letters are taken by weight:—  
Under half an ounce .. .. Single.  
Under an ounce .. .. Double.  
Under two ounces .. .. Quadruple.  
Under three ounces .. .. Sextuple, and so on.

## PERSONS EXEMPT FROM SHIP LETTER POSTAGE.

The Owners, Charterers, or Consignees, (resident in the United Kingdom), and the Owners, Consignees, and Shippers of Goods on board vessels inward bound, are entitled to receive their letters free from sea postage, to the extent collectively of six ounces in weight, by any one vessel to any one such person. In the case of vessels coming from Ceylon, the Mauritius, the East Indies, or the Cape of Good Hope, for an Owner, Charterer, or Consignee of such vessel, the letters may be collectively twenty ounces in weight. The Owner, Charterer, or Consignee, must be described as such on the address and superscription; and in the case of Owners, Shippers, or Consignees of goods, it must also appear by the Ship's Manifest that they have goods on board the vessel. Such persons are entitled to have their letters, which come within the above conditions, before the master of the vessel delivers the other letters in his charge to the post-office.

\* Every person who shall, with intent to evade any duty of postage, falsely superscribe a letter as being the Owner, or the Charterer, or the Consignee of a vessel conveying the same, or as the Owner, or the Shipper, or the Consignee of goods shipped in such vessel, shall for every such offence forfeit Ten Pounds.

## MONEY.

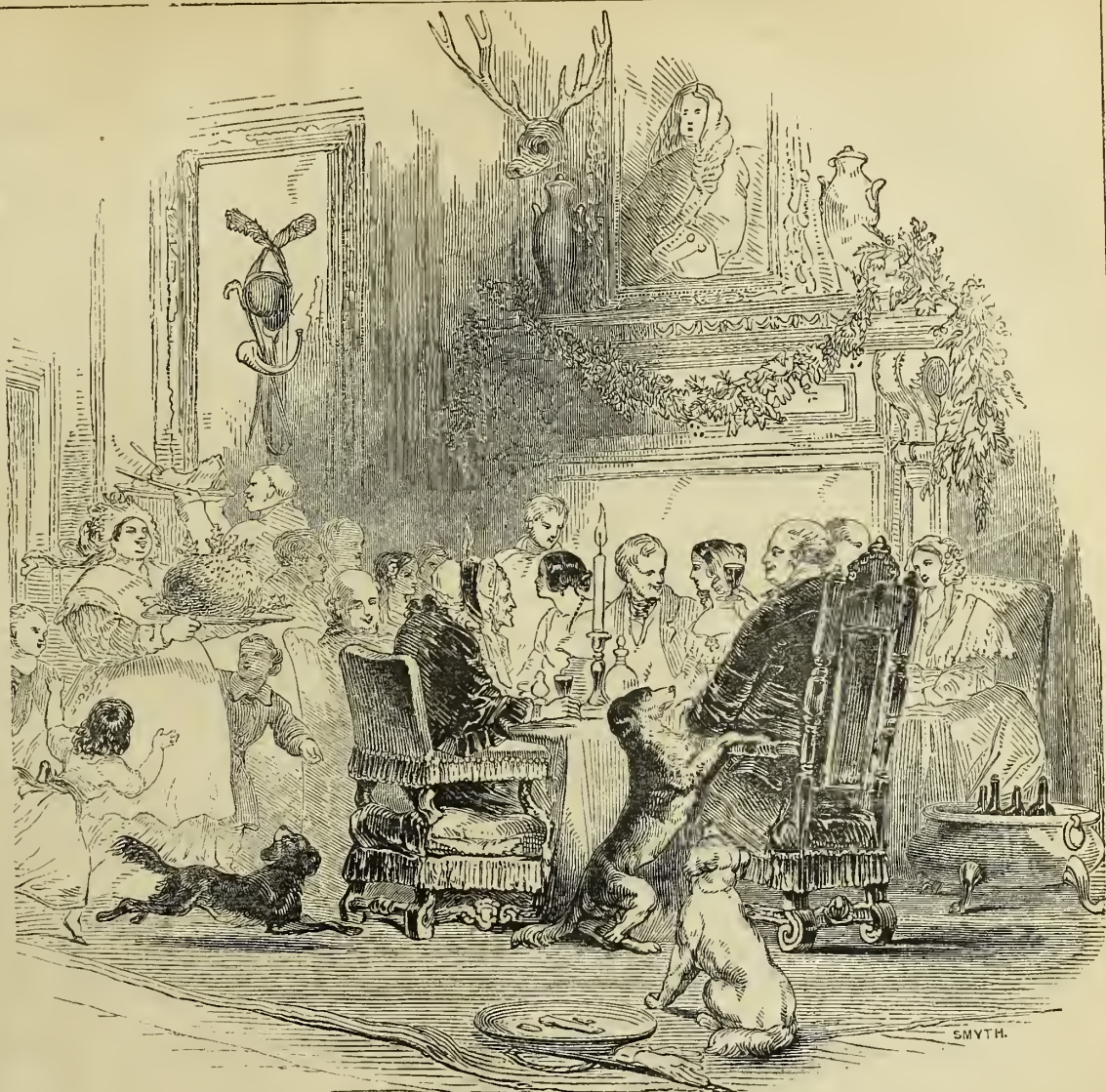
Coin, if enclosed in letters at all, should be folded in paper, sealed, and then fastened to the inside of the letter; but to avoid risk, a money order should be used whenever practicable. A letter may be registered on the payment of 1s. only.

COLONIAL LETTERS, if sent by packet, twelve times, if by private ship, eight times the preceding rates.

FOREIGN LETTERS: The packet rates are too various to be enumerated here. The ship rates are the same for foreign as for colonial letters. As regards both foreign and colonial letters, there is no limitation as to weight. All sent outwards, with few exceptions, must be prepaid by money or by stamps; and those going by private ship must be marked "ship letter."

It is requested that all letters may be fully and legibly addressed, and posted as early as convenient. Also that whatever kind of stamp may be used, it may invariably stand above the address, and towards the right hand side of the letter.





DECEMBER.

## THE YULE BLOCK.\*

A CHRISTMAS CAROL.

A cross-grain'd block of elm we'll take  
And by his light hold merry wake!—OLD BALLAD.

When holly leaves and ivy green,  
With berries bright and dark between,  
Around the cottage room are seen,

The simple place adorning—  
What joy before the cheerful blaze,  
The almost conscious fire displays,  
To sit in Christmas' merry days

Ay! sit up till the morning!

And hear the early carillon  
Of village bells—while old and young  
Are mingled in that festal throng,

Through life we aye remember!  
To feel the heat of Summer's glow,  
In frosty depth of Winter's snow  
And think we're *Maying it*, although  
'Tis flowerless December!

To join the hearty laugh around,  
When some coy damsel's feet are found  
To thoughtless tread the fairy-ground

The Mistletoe that's under;—  
And see some lounging lover steal  
A kiss from cheeks that ill conceal  
The secret joy they inward feel,  
'Neath frowns and blushing wonder!

What face with summer's sun embrown'd  
Was ever half so joyous found  
As those in ruddy gladness 'round

The YULE-BLOCK's† cheerful gleaming!  
Romance may seek wild solitudes,  
By waterfalls in lonely woods—  
But Mirth and Love, with happier moods,  
O'er Christmas hearth are beaming!

W.

\* Yule from the Saxon *yeol* or *yeuhl*, the Christmas time.

† In many parts of the country it was a practice to preserve a portion of the yule block to the next year in order to light the new Christmas log.

CHRISTMAS is now no longer marked by that fervid hospitality which characterised its observance among our forefathers. At present, Christmas meetings are chiefly confined to family parties. The wassail bowl, the yule clog, and the Lord of Misrule, with a long train of sports and customs, which formerly prevailed at this season, are nearly forgotten: even Christmas carols are nearly gone by; and the decking of churches and of a few houses of people in humble life, with holly and other evergreens, forms now almost the only indication that this great festival is at hand, if we except the distribution of warm clothing and creature comforts among the poor by those whom heaven has blessed with "the luxury of doing good." In olden times—

On Christmas Eve, the bells were rung;  
On Christmas Eve, the mass was sung,  
That only night in all the year,  
Saw the stoled priest the oblate rear,  
The damsel donned her kirtle sheen;

The hall was dressed with holly green;  
Forth to the wood did merry men go,  
To gather in the mistletoe.  
Then opened wide the baron's hall,  
To vassal, tenant, serf, and all.

The pursuit of the fox may be now enjoyed in perfection; the fox, the hounds, and the horses having, by exercise, obtained good wind and good running condition altogether. Hares which by previous over-feeding were rendered somewhat sluggish will now stand up well before their pursuers, and afford as good runs, if not better, than at any other period of the season.

## ANGLING.

Use the same baits as last month. In favourable weather, pike, roach, and chub, may sometimes be taken; but all other fish have retired to their winter retreats, to screen themselves till the voice of Spring again re-animates, and calls them forth to their old haunts.



# THE ILLUSTRATED LONDON ALMANACK.

There are "made up" in London the following mails, as specified by the notices to the public, issued by the Post-Master-General:—

	When made up in London.	When Due.	Postage.
France .. .. .	Daily	Daily	Under ½ oz. 10d.
Belgium .. .. .	Monday, Tuesday, Thursday & Friday	Sunday, Monday, Thursday & Friday	½ oz. 1s. 3d.
Holland .. .. .	Tuesday and Friday	Monday and Thursday	½ oz. 1s.
Hamburg, Sweden, and Norway	Tuesday and Friday	Tuesday and Saturday, but usually arrive on previous day	½ oz. 6d. Sweden and Norway, 1s. 8d. under ½ oz.
Sweden and Norway (during the summer months) <i>via</i> Hull	Friday	Tuesday	Under ½ oz. 1s. 9d.
Dublin .. .. .	Twice a day	Twice a day	Under ½ oz. 1s. 3d.
Waterford .. .. .	Daily	Daily	½ oz. 1s. 6d.
Donaghadee .. .. .	Daily	Daily	½ oz. 2s. 9d.
Gurnsey and Jersey .. .. .	Tuesday and Friday	Monday and Thursday	Inland rates.
Lisbon, Madeira, Vigo, Cadiz, Oporto, and Gibraltar	Every Thursday Morning	Every Thursday Morning	Under ½ oz. 1s. 9d.
Malta, Greece, and Ionian Islands, <i>via</i> Southampton	Twice in Each Month, viz.:—On the first day of every month, and on the Thursday nearest to the 15th of every month.		½ oz. 1s. 3d.
Syria, Egypt, and India, <i>via</i> Southampton	First day in each month		½ oz. 1s. 6d.
Brazil, Buenos Ayres, Madeira, and Canary Islands	1st Tuesday in each month.		½ oz. 2s. 9d.
British North America, Bermuda, and United States	3rd and 18th of every month, except in the Winter Months, December, January, February, and March, and then on the 3rd only		See table below,
Jamaica, Leeward Islands, Hayti, Porto Rico, and Cuba	Mornings of the 2nd and 17th of every month		Ditto.
Mexico, Panama, New Granada, and Venezuela	Morning of the 2nd of every month		Ditto.

The mails despatched every Thursday for Vigo, Oporto, Lishon, Cadiz, and Gibraltar are forwarded by steam vessels from Southampton to Gibraltar.

The mails for Malta, Greece, and the Ionian Islands, despatched from London on the Thursday nearest to the 15th of the month, are conveyed from Gibraltar to Malta by her Majesty's steam packets employed in the Mediterranean.

The mail of the first day in each month is forwarded by the same packet from Southampton to Alexandria; leaving mails at Malta.

The mails for Greece and the Ionian Islands are conveyed from Malta every fortnight, by steam packets, which start after the arrival of the mails from England.

The mails for Egypt and India are forwarded direct from Southampton on the 1st of each month by steam packets.

From August to January inclusive, the packet touches at PERNAMBUCO and BAHIA, on her outward passage to RIO JANEIRO, and the other six months on her homeward.

## RATES OF POSTAGE WITHIN BRITISH NORTH AMERICA.

Letters forwarded to or from British North America by the Liverpool packets, or by private ships, passing direct between the United Kingdom and British America, are charged with an uniform colonial rate of *twopence the half ounce* when posted or delivered at any other towns than the ports of Halifax, Nova Scotia, or St. John's Newfoundland.

When not conveyed direct between the United Kingdom and British America, but forwarded through the United States, they are liable to the full internal rates, according to distance.

## MONEY ORDERS.

Orders for sums not exceeding £2 are charged threepence; not exceeding £5, sixpence; above £5 no money order can be obtained. They are granted and paid between the hours of ten and four daily: they are paid only to the person for whom they were obtained, but he may depote another person to receive the money by signing the order, and giving his deputy the christian and surname, the address, and occupation of the person who originally obtained the order, so that the deputy may be enabled to give those particulars when he presents the order at the office for payment. Persons residing in London should instruct their correspondents who may obtain money orders, to make them payable at the most convenient of the above offices, as money orders granted, hearing London only, can be paid only at the principal office, St. Martin's-le-Grand.

## METROPOLITAN PUBLIC CARRIAGES, HACKNEY AND STAGE COACHES, ETC.

Office, No. 3, Princes Street, Storey's Gate, Westminster.  
Registrar, H. Wedgwood, Esq.

THIS office was established in October, 1838, under the provisions of the Act of 1 and 2 Vict. cap. 79. Every carriage plying for hire within 10 miles from the General Post Office, and not being a stage carriage, is to be considered a "Hackney Carriage;" and every Stage Carriage (except such as every journey go beyond these limits) a "Metropolitan Stage Carriage." Every such carriage is to have the number, and the number of passengers licensed to carry, conspicuously placed inside and outside.

The Act requires all drivers, conductors, and watermen to be licensed; authorises the registrar to grant licenses on payment of 5s., and requires such persons to wear badges. A magistrate may suspend for two months, and two magistrates may revoke the license. Driver or conductor by misconduct occasioning damage on highways, being drunk during employment, or abusive, to forfeit not exceeding £3, or be committed for not exceeding two months; and magistrate may order compensation from proprietor not exceeding £5. For obstructing road, improperly delaying on journey, or deceiving as to destination or route, or stopping on crossing, a fine not exceeding £1. The Act requires complaints to be made within seven days from offence. The justice's decision is final. It is important to bear in mind that, if the complainant is the only witness, he must, before his evidence is taken, renounce his right to share of penalty, the whole of which thereupon goes to cost of police of district; otherwise only half, the other going to the complainant. In all cases with costs. Actions under this statute are to be commenced within three months. The regulations to prevent extortion, which are in force as regards the fares for Hackney Carriages, apply to these carriages also. The regulations as to HACKNEY CARRIAGES remain the same as prescribed by Act of 1 and 2 Will. IV. cap. 22, by which the fares are governed. The general control, however, of these public carriages also, is now vested in the registrar of the Metropolitan Public Carriages. Drivers are compellable to drive to any place within the prescribed limits; to wait, on deposit being made; to obtain hirer's consent before allowing other persons to ride; and to deposit within four days in the office all property left in carriages. The regulations as to Hackney Carriage Fares are as follows:—

They are regulated by either distance or time: by distance, at the rate of 1s. per mile; by time, 2s. per hour, with fractional proportions. One-horse carriages, whether FLYS OR CABRIOLETS, are entitled to two-thirds of the above sums respectively.

No single fare is less than 1s. for Coaches, and 8d. for Cabriolets. Every

## LONDON DISTRICT POST.

The following table shows the times at which letters are despatched from and to London, and to and from places within the limits of the London district post.

Letters must be posted at receiving-houses in London,

Morning, before 8 for the 10 o'clock dispatch

"	10	"	12	"
"	12	"	1	"
"	1	"	2	"
"	2	"	3	"
"	3	"	4	"
"	4	"	5	"
"	5	"	6	"
"	6	"	8	"
"	8	"	8 next morning.	"

At the principal office, St. Martin's-le-Grand, letters must be posted,

Morning, before 9 for the 10 o'clock dispatch,

"	11	"	12	"
"	q. before 1	"	1	"
"	q. before 2	"	2	"
"	q. before 3	"	3	"
"	q. before 4	"	4	"
"	q. before 5	"	5	"
"	q. before 6	"	6	"
"	q. before 7	"	8	"
"	before 8	"	8 next morning.	"

The deliveries in the country commence immediately upon the arrival of the dispatch from London, except the 8 o'clock night dispatch, which is not delivered till the next morning. The time of arrival of the day-dispatches may be calculated by the distance from London, allowing the post to travel at about the rate of eight miles an hour. Letters for places on the main roads are delivered generally sooner than those for places a distance from them; the deliveries occupy, according to distance from London, from one hour and a half to three hours after the time of dispatch from London. Receiving-houses where the mail cart stops are also called sorting-offices: where there are other receiving-houses in the same place or town, letters are generally dispatched from the latter from a quarter to three-quarters of an hour earlier than from the sorting-offices. There are no receiving-houses at those places having no time stated for dispatch to London.

half mile beyond the first mile is 6d. for Coaches, 4d. for Cabriolets. Every 15 minutes completed, and part of 15 minutes, beyond the first 30 minutes, 6d.

Back fare payable after eight in the evening, but not after five in the morning, where discharged beyond limits.

## NEW REGULATIONS RESPECTING STAGE CARRIAGES, INCLUDING OMNIBUSES.

No stage carriage is to carry passengers otherwise than upon proper seats, allowing 16 inches in breadth for each passenger; children under five years of age, sitting on the lap, not to be reckoned. The number of passengers is to be painted conspicuously in the inside of every carriage, and on the back outside, under a penalty of £10 against the proprietor. No more than the proper number of passengers are to be carried, under a penalty of £5 each against the driver and conductor respectively. Any constable, peace-officer, or passenger, may measure the seats, under a penalty of £5 against any person refusing or obstructing such measurement.

N.B. Rules are laid down respecting the number of outside passengers, limiting it according to the height and size of the carriage, independently of the limitation resulting from the length of the seats. See 5 and 6 Victoria, c. 79, ss. 13—17.

## PORTERAGE.

The Rates of Porterage are regulated by Act of 39 Geo. III. cap. 58. For any parcel not weighing more than 50lbs. and when the distance does not exceed a quarter of a mile, 3d.; half a mile, 4d.; a mile, 6d.; a mile and a half, 8d.; two miles, 10d.; and 3d. for every additional half mile. Porters exceeding more to be fined not exceeding 20s., misbehaving 20s. to 10s. A ticket to be sent with every parcel, charge for carriage and porterage marked on it, under a penalty of 40s. or not less than 5s. Parcels are to be delivered at any place within half a mile of the carriage pavement in six hours after arrival, under a penalty of 20s. and not less than 10s. Parcels arriving between four in the evening and seven in the morning to be delivered in six hours from the latter period, under the like penalty. Informations under Act to be laid within 14 days, with appeal to Quarter Sessions.

The business of the London and Metropolitan Parcels Delivery Company, on the plan of the London Local Post, continues to be conducted with cheapness and punctuality, and to be successful and useful. Chief station, Roll's Buildings, Fetter Lane; and there are upwards of seven hundred receiving houses.

## RATES OF PARCELS FROM INNS IN LONDON.

For any parcel not weighing more than 50lbs., and where the distance does not exceed a quarter of a mile, 3d.; half a mile, 4d.; a mile, 6d.; a mile and a half, 8d.; two miles, 10d., and 3d. for every additional half mile. Porters



exacting more to be fined 20s., or not less than 5s.; misbehaving 10s. to 20s. A ticket to be sent with every parcel, with the charge for carriage and portage marked on it, under a penalty of 40s., or not less than 5s. Parcels are to be delivered within six hours after arrival, under a penalty of 20s., or not less than 10s. Parcels arriving between four in the evening and seven in the morning, to be delivered in six hours from the latter period under the like penalty.

#### RESPONSIBILITIES OF CARRIERS.

By 1 William IV. cap. 68, it is enacted, that mail contractors, coach proprietors, and carriers, shall not be liable for the loss of any parcel containing coin, gold or silver manufactured or unmanufactured, jewellery, watches, clocks, &c.; bills, bank notes, or securities for the payment of money; maps, writings, title-deeds, paintings, plated articles, glass, china; manufactured or unmanufactured silks, furs, or lace, where the value of such parcel exceeds

10l., unless delivered as such, and an increased charge be paid and accepted for the same, of which charge notice is to be affixed in offices and warehouses. Carriers, &c., are to give receipts, acknowledging such increased rate; and in case of neglecting to give receipt or affix notice, the party not to be entitled to the benefit of this Act. The publication of notices is not to limit the liability of proprietors, &c., in respect of any other goods conveyed. Every office used to be deemed a receiving-house; and any one coach proprietor or carrier liable to be sued. Nothing in this Act extends to annul, or in any-wise affect any special contract between such mail contractor, stage-coach proprietor, or common carrier, and any other parties, for the conveyance of goods. This act does not protect any mail contractor, stage-coach proprietor, or other common carrier, from liability to answer for loss or injury to any goods arising from the felonious acts of any coachman, guard, book-keeper, or other servant, nor to protect any such coachman, servant, &c., from liability, for any loss or injury occasioned by his own neglect or misconduct.

#### NEW RAILWAY REGULATIONS.

By the act passed (cap. 85) by Parliament during the late session, and known as "Mr. Gladstone's Railway Bill," the following additional provision is made for the accommodation of the public by Railway conveyance:—

In order to secure to the poorer class of travellers the means of travelling by railway at moderate fares, and in carriages in which they may be protected from the weather, be it enacted, that on and after the several days hereinafter specified, all passenger Railway Companies which shall have been incorporated, or which by any Act of the present session, or which shall be hereafter incorporated, or which by any Act in the present or any future session, have obtained, or shall obtain directly or indirectly, any extension or amendment of the powers conferred on them respectively by their previous Acts, or have been or shall be authorised to do any act unauthorised by the provisions of such previous Acts, shall by means of one train, to travel along their railway from one end to the other of each trunk, branch, or junction line belonging to or leased by them, so long as they shall continue to carry other passengers over such trunk, branch, or junction line, once each way, on every week day, provide for the conveyance of third class passengers to and from the terminal and other ordinary passenger stations of the railway, under the obligations contained in their several Acts of Parliament, and with the immunities applicable by law to carriers of passengers by railway; and also under the following conditions (that is to say):—

Such train shall start at an hour, to be from time to time fixed by the Directors, subject to the approval of the Lords of the Committee of Privy Council for Trade and Plantations.

Such train shall travel at an average rate of speed not less than twelve miles an hour, for the whole distance travelled on the railway, including stoppages.

Such train shall, if required, take up and set down passengers at every passenger station which it shall pass on the line.

The carriages in which passengers shall be conveyed by such train shall be provided with seats, and shall be protected from the weather, in a manner satisfactory to the Lords of the said Committee.

The fare or charge for each passenger by such train shall not exceed one penny for each mile travelled.

Each passenger by such train shall be allowed to take with him half a

hundred weight of luggage, not being merchandise, or other articles carried for hire or profit, without extra charge; and any excess of luggage shall be charged by weight, at a rate not exceeding the lowest rate of charge for passengers' luggage by other trains.

Children under three years of age, accompanying passengers by such train, shall be taken without any charge; and children of three years and upwards, but under twelve years of age, at half the charge for an adult passenger.

And with respect to all railways subject to these obligations which shall be open on or before the 1st day of November next, these obligations shall come into force on the said 1st day of November; and with respect to all other railways subject to these obligations, they shall come into force on the day of opening of the railway, or the day after the last day of the session in which the Act shall be passed by reason of which the Company will become subject thereunto, which shall first happen.

And if any Railway Company shall refuse or wilfully neglect to comply with the provisions of this Act, as to the said cheap trains, within a reasonable time, or shall attempt to evade the operation of such order, such Company shall forfeit to her Majesty a sum not exceeding £20 for every day during which such refusal, neglect, or evasion shall continue.

Except as to the amount of fare or charge for each passenger by such cheap trains, which shall in no case exceed the rates heretofore in such case provided, the Lords of the said Committee shall have a discretionary power, upon the application of any Railway company, of dispensing with any of the conditions heretofore required in regard to the conveyance of passengers by such cheap trains as aforesaid, in consideration of such other arrangements as either in regard to speed, covering from the weather, seats or other particulars, as to the Lords of the said Committee shall appear more beneficial and convenient for the passengers by such cheap trains under the circumstances of the case, and shall be sanctioned by them accordingly; and any Railway Company which shall conform to such other conditions as shall be so sanctioned by the Lords of the said Committee, shall not be liable to any penalty for not observing the conditions which shall have been so dispensed with by the Lords of the said Committee, in regard to the said cheap trains and the passengers conveyed thereby.

No tax shall be levied upon the receipts of any Railway Company from the conveyance of passengers at fares not exceeding one ld. for each mile by any such cheap train as aforesaid.

#### NEW LAWS OF DEBTOR AND CREDITOR.

The following is an Analysis of the leading Clauses of the New Insolvent Debtors' Act, 7 and 8 Vic., cap. 96, for Abolishing Imprisonment for Debts of £20, and under; and of an Act for Facilitating Composition with Creditors, 7 and 8 Vic., cap. 70.

##### ANALYSIS OF AN ACT TO AMEND THE LAW OF INSOLVENCY, BANKRUPTCY, AND EXECUTION.

Petition for Protection may be presented to any Court of Bankruptcy within district of which Debtor shall have resided twelve months.

Form of Petition—to be verified by Affidavit.

All Creditors to the amount of £5 named in the Schedule to Petition to have Notice; Advertisement in *London Gazette*, &c., appointing first Examination; Commissioner may adjourn Examination, permit Amendment of Schedule. Assignees to be chosen.

Property of Petitioner to vest in Assignees from Appointment—to be in every case possessed and received by the Official Assignee alone. Chancellor, &c., may make orders for security of the property.

Commissioners to have same power as under a Fiat for seizure of Property, compelling attendance of Witnesses, production of Documents, &c.

Prisoner in Execution not being a Trader, or whose Debts are less than £300, may Petition for Protection; Interim Order will discharge Prisoner without Fee; Judgment to remain in force until final order for Protection.

If Petitioner not entitled to be Discharged, may be brought up by Warrant. If Petitioner die, Commissioner may proceed in the discovery and distribution of Property.

Necessaries and Working Tools to the value of £20 excepted from the operation of this Act and 5 & 6 Vict., c. 116—to be valued and inserted in Schedule.

Pending appointment of Creditors' Assignees, Official Assignee to act as sole Assignee; Commissioner may order allowance to Petitioner; In case of death or removal of Official Assignee, Property to vest in his successor; If Petitioner dismissed, all Property undisposed of to re-vest in Petitioner.

Assignees may execute all powers which the Petitioner might have executed for his own benefit.

Assignees may sue in their own names, compromise debts, and submit differences with consent of major part in value of Creditors.

Creditors to vote at Meetings only on the balance of accounts due to them.

Goods in the reputed ownership of Petitioner, with the consent of true owner at the filing of Petition, shall vest in Assignee.

Landlord to recover but One Year's Rent; may prove for balance.

Preferences in contemplation of Petition void against Assignees; If made prior to three months before, and not in contemplation of Filing Petition, not void.

No Warrant of Attorney, Cognovit, or Bill of Sale to be acted on after Petition filed.

Final Order to protect the person of Petitioner against all debts included in the Schedule, whether due or otherwise.

Prisoner detained for any Claim from which he is protected by the Final Order, Commissioner may order his discharge.

Stock or Shares may be transferred by order of the Commissioner.

Commissioner not to make any Final Order of Protection where Debts contracted by Fraud, &c., but to remand to prison—if otherwise, Final Order of Protection to be given in default of cause shown, after notice to Creditors. Commissioner empowered to adjourn the consideration of Final Order *sine die*.

Commissioner may, where Final Order adjourned *sine die*, at a future time in his discretion after hearing Petitioner or any of his Creditors, or his or their Counsel or Attorneys, give an Order of Protection—Where Final Order refused, and Protecting Order not renewed, Debtor not to be imprisoned more than twelve calendar months for any Debt contracted before filing his Petition.

Petitioner taken or detained after such Order to be discharged without Fee. Whenever after Audit sufficient funds for a Dividend shall be in the hands of the Official Assignee, Commissioner to order Dividend forthwith—Notice of sitting of Court to be given.

At the end of twelve months from filing Petition, Commissioner may order Sale of Outstanding Debts.

No Sale by Auction to be liable to Duty—No Letter or Attorney, Affidavit, Certificate, or Advertisement, or any other proceeding, to be liable to Duty—Sale to be by Licensed Auctioneer.

Willfully omitting in Schedule any property otherwise than necessities and tools to the amount of £20 a Misdemeanour, and punishable with imprisonment and hard labour for any period not exceeding three years.

False Oath or Affirmation perjury.

Fiat in Bankruptcy may issue against Trader who has filed a declaration of Insolvency, upon a Petition of the Trader himself.

No Arrest in any Action for Debt for any sum not exceeding £20, exclusive of the Costs, recovered by such Judgment.

The Court or a Judge shall, on application, after the passing of this Act, (9th Aug. 1844), order the Discharge of Prisoners for Debt, where the same shall not exceed £20, exclusive of Costs.

Judge who shall try Cause may, if it should appear that Defendant contracted Debt under False Pretences, or fraud or without reasonable assurance of being able to Pay, or shall have made away with or transferred Personal Property, order Imprisonment, whether or not execution against the Defendant's goods shall have issued.

Court or Judge making Order for the Payment of Money, in Default, to be Levied by Execution against Goods, &c.

Order being made for Payment by Instalment, Execution not to issue until Default—may then issue for over-due Instalments, or Balance, as Judge shall order.

Judge may, in cases of Sickness, or unavoidable Accident, suspend Execution until temporary cause of disability has ceased.

Execution superseded, on Payment of Debt and Costs.

If Bailiff neglect to Levy, amount of Execution recoverable from him by Action in Court where Execution recovered.

Landlord of Tenement let Weekly only to claim against Execution Creditor Four Weeks arrears—if for other term less than a Year, then the Rent accruing during four such terms.

In case of Claims to Goods taken in Execution, Court, on application of Officer, may summons the Parties, and adjudicate.



### ANALYSIS OF AN ACT FOR FACILITATING ARRANGEMENTS BETWEEN DEBTORS AND CREDITORS.

FROM 1st. Sept. 1844, Debtor not being liable to Bankrupt Laws, may petition the Court of Bankruptcy, signed by one-third the number and value of his Creditors, setting forth a true account of all his Property, for Protection from Arrest.

Commissioner to appoint Private Examination, and on being satisfied of the absence of Fraud or Misconduct, shall direct a Meeting of all the Creditors.

If at such Meeting nine-tenths in value or number of the Creditors above £20, shall agree to the Debtor's proposal, President shall appoint another Meeting.

If three-fifths in number and value, or nine-tenths in number or value of Creditors above £20 shall agree to proposition made at the first Meeting, and sign the same, it shall thenceforth (subject to the Confirmation of the Commissioner) be binding against the Debtor, and all Creditors served with Notices of the said Meetings. Not to be valid unless a full third in number and value of all the Creditors were present at the second Meeting.

Agreement to be submitted to Commissioner within fifteen days. If con-

firmed, Debtor to have Certificate of Filing, indorsed from time to time with Certificate of Protection. Protection not to be valid where Debtor about to abscond beyond Jurisdiction of Court, or has concealed, or his concealing, Effects, or if Debts contracted by fraud or breach of trust.

Estate of Petitioner to vest, without deed, in Trustee, from filing of Resolution and Agreement.

Trustee, every Six Months, or oftener, in the discretion of the Commissioner, or two or more Creditors whose debts amount to one-fourth of the whole, to produce for examination an account on oath. Commissioner to certify result of Examination, and, if need be, order payment to Creditors.

Petitioner liable, at any time, to be summoned and examined on oath upon representation by Trustee or any two Creditors that true discovery &c. not made.

In cases of difficulty, Special Meeting of Creditors to be called. Resolutions thereat, qualifying the original Resolutions to be valid, and taken as part thereof, provided one-third in number and value shall attend, otherwise invalid, unless confirmed by Commissioner.

When agreement carried into effect, a Meeting to be called.

Commissioner to grant Certificate to Petitioning Debtor.

Not to extend to Scotland or Ireland.

### THE BANK CHARTER.

As the different enactments of the new Bank Charter Bill come into operation at different periods, we think we shall render a useful service to our readers by specifying the date of the commencement of the operation of each enactment.

1. The division of the departments of the Bank of England took place "upon the 31st day of August, 1844.

2. All persons may demand notes for gold at £3 17s. 9d. per ounce, "from and after the 31st of August, 1844."

3. Bank of England exempt from stamp duty "from and after 31st August, 1844;" Bank to allow £180,000 per annum, from the same date.

4. No new bank of issue to be allowed "from and after the passing of this act."

5. Existing banks of issue to give notice to the Commissioners of Stamps and Taxes of their claim to issue to the extent of their average issue during the twelve weeks preceding the 27th April—such notice to be given "within one month next after the passing of this act."

### SAVINGS' BANKS.

The return of the exact sum, received from the Depositors, is here secured to them, together with the interest which may have accumulated, free from Income Tax.

The smallest sum that can be deposited at a time is *one shilling*. The interest begins in some banks on reaching a pound, and is at the rate of £3 0s. 10d. per Cent. per Annum. No person can deposit more than £30 in each year, nor more than £150 altogether, exclusive of interest, which may accumulate to £200, when it ceases till the sum is reduced below £200.

We subjoin an analysis of the chief provisions of the Act of last Session, to amend the laws respecting Savings' Banks.

From and after 20th November, 1841, the Interest payable to the Trustees of Savings' Banks shall be at the rate of £3 5s. per cent.

The depositors on making first deposit are to sign a declaration, and a copy thereof is to be annexed to deposit book.

A punishment is provided for the case of an Actuary, &c., receiving deposits and not paying over the same to the Managers of the Bank.

The depositors must produce his book at institution.

Annuities are not to exceed £30.

An annuity may be granted to husband and to wife.

Where the deposits and interest do not exceed £50 exclusive of interest, if the will, &c. be not proved within a month, the money may be paid to the widow or to a party entitled to the effects of the deceased.

Payment may be made on the death of a depositor, being illegitimate, and dying intestate.

Payment may be made to married women of deposits made by them, when declared to be valid.

In the case of a reference, a barrister may inspect the books, and administer an oath to witnesses.

The bonds given under 9 G. 4. c. 92. and 3 and 4 W. 4. c. 14. to be sent to the Commissioners for Reduction of National Debt.

The bond is not liable to stamp duty

The act repeals part of 9 G. 4. c. 92. as to deposit of rules with Clerk of the Peace.

Two written or printed copies of rules are to be submitted to the barrister for his certificate.

The barrister is to return one copy to Institution, and transmit the other copy to Commissioners.

Provision is made for the adaptation of the provisions of this act to the law of Scotland.

The provisions of this act are to apply to purchasers of annuities.

We subjoin the seventeenth clause entire, it being important to depositors to know the nature of the security required from trustees:—

"And he it enacted, that every Treasurer, Actuary, or Cashier, who shall be intrusted with the receipt or custody of any sum of money subscribed or deposited for the purpose of such institution, or any interest or dividend from time to time accruing therefrom, and every officer or other person receiving any salary or allowance for their services from the funds of any Savings' Bank or Government Annuity Society (unless he shall have already given good and sufficient security), shall give good and sufficient security, to be approved of by not less than two Trustees and three Managers of such Savings' Bank or Government Annuity Society, for the just and faithful execution of such office or trust; and such security when given by an Actuary or Cashier, or officer or person receiving any salary or allowance for his services as aforesaid, shall be given by bond or bonds with one or more sureties to the Comptroller General of the National Debt Office for the time being, without fee or reward; and in case of forfeiture it shall be lawful for the Trustees or Managers for the time being of such Institution to sue upon such bond or bonds in the name of such Comptroller General for the time being, and to carry on such suit at the costs and charges and for the use of the said Institution, fully indemnifying and saving harmless such Comptroller General from all costs and charges in respect of such suit; and no bond to be so given shall be subject to be charged or chargeable with any stamp duty whatever; and such bond shall, when executed, be deposited with the Commissioners for the Reduction of the National Debt."

### SAVINGS' BANK TABLE.

The following table will show what a certain weekly contribution paid into a Savings' Bank would amount to in a certain term of years, interest being at £3 8s. 6d. per cent. It is a highly instructive table, well worthy of being carefully studied by every individual of the industrious orders:—

	One Shilling per Week.	One Shilling & Sixpence per Week.	Two Shillings per Week.	Three Shillings per Week.	Four Shillings per Week.	Five Shillings per Week.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1 Year, -	2 12 7½	3 19 0	5 5 4½	7 8 3½	10 11 1½	13 3 10
2 ..	5 6 11	8 0 6	10 14 4	16 1 10	21 9 5	26 16 7
3 ..	8 3 1	12 4 11	16 6 10½	24 10 11½	32 15 0½	40 18 7
4 ..	11 1 1½	16 12 3	22 3 3	33 5 11	44 8 6	55 10 3
5 ..	14 1 3	21 2 5	28 3 7½	42 6 10½	56 9 9½	70 12 0½
6 ..	17 3 4½	25 15 9	34 8 1	51 14 0	68 19 4½	86 4 1
7 ..	20 7 7	30 12 4	40 16 7½	61 7 6	81 17 5	102 6 8
8 ..	23 14 3½	35 12 5	47 9 10	71 7 7½	95 4 4½	119 0 5
9 ..	27 2 10	40 15 2	54 7 5½	81 14 7½	109 0 5½	136 5 7½
10 ..	30 13 10½	46 2 3	61 9 10½	92 8 7	123 6 1½	154 2 7½
11 ..	34 7 4	51 12 8	68 17 1	103 9 11	138 1 6	
12 ..	38 3 5½	57 6 10½	76 9 4½	114 18 9½		
13 ..	42 1 10	63 5 0	84 6 10½	126 15 6		
14 ..	46 3 1½	69 7 2	92 9 9	139 0 5½		
15 ..	50 7 2	75 13 5½	100 18 2	151 13 9½		
16 ..	54 14 2	82 4 1	109 12 5½			
17 ..	59 4 0	88 19 1	118 12 8½			
18 ..	63 16 11½	95 18 8	127 19 1			
19 ..	68 13 1	103 3 1½	137 11 9½			
20 ..	73 12 5½	110 12 6½	147 11 2			

### COURTS OF REQUEST.

CITY—near Guildhall. Court-days, Wed. and Sat. at 11; office hours on other days, 10 till 1. SOUTHWARK, Swan-street, Trinity Square, Court-days, Tu. and Fri. at 10; other days, 9 till 2. TOWER HAMLETS, Osborne-

street, Whitechapel. Court-days, Tuesday and Friday at 10; other days, 9 till 2. WESTMINSTER—Castle-street, Leicester-square. Court-days, Tuesday and Thursday at 11; other days at 10. MIDDLESEX—Kingsgate-street, Holborn. Court-days, Monday and Thursday at 9; other days, 9 till 3.



## NEW DOMESTIC REMEDIES.

**TOOTH-ACHE.**—Caoutchouc, becoming very smooth and viscous by the action of fire, has been proposed by Dr. Rolifs as an excellent remedy for filling hollow teeth, and alleviating the tooth-ache proceeding from that defect. A piece of caoutchouc is to be put on a wire, then melted at the flame of a candle, and pressed, while warm, into the hollow tooth, and the pain will be removed instantly. The cavity of the tooth should first be cleaned out with a piece of cotton. In consequence of the viscosity and adhesiveness of the caoutchouc, the air is completely prevented from coming into contact with the denuded nerve, and thus the cause of the tooth-ache is destroyed.—*Buchner's Repertorium for Pharmacists.*

**HOOPING-COUGH.**—Dr. Cajetan Wachtl, of Vienna, treated nine children, suffering from hooping-cough, with cochineal, as recommended by certain English physicians. The remedy was administered in all stages of the disease; and its efficacy was so instantaneous and constant, that, notwithstanding the paucity of cases, Dr. Wachtl feels authorised to regard cochineal as a specific in hooping-cough. The following is his manner of exhibiting the remedy:—Take of cochineal, one scruple; sugar, one ounce. Dissolve in six ounces of warm water. The dose is three teaspoonfuls in the twenty-four hours. The solution ought not to be kept longer than thirty-six or forty-eight hours, because after that time it assumes a brown hue, and a sour taste, which render it unfit for use.

**HOARSENESS.**—One drachm of freshly scraped horseradish root, to be infused with four ounces of water, in a close vessel, for two hours, and made into a syrup, with double its weight in vinegar, is an improved remedy for hoarseness; a teaspoonful has often proved effectual; a few teaspoonfuls, it is said, have never been known to fail in removing hoarseness.

**TO STOP A FIT OF COUGHING.**—A correspondent of *The London Medical Gazette* states, that to close the nostrils with the thumb and finger during respiration, leaving them free during inhalation, will relieve a fit of coughing in a short time. Nervous coughing may be prevented by rubbing pretty smartly with the point of the finger the edge of the lips, the eyelids, or the tip of the nose, when the first desire to cough is felt.

**SHORT SIGHT.**—This infirmity of vision, a complaint which is rather common among the higher classes of society in all countries, is not unfrequently cured in Russia by the following plan:—The patient is placed with the back part of the head fixed against a wall, and a desk is put before him with a book on it, at such a distance that he may easily read. After a week or two have elapsed, the desk is moved further off, thus gradually increasing the distance until it has been removed to the full extent of ordinary vision, always allowing the patient to acquire the power of reading before the distance is increased.

**APOPLECTY.**—It is recommended that persons of an apoplectic tendency should not use high bedsteads, unless they are protected by a rail, which may be so contrived as to be moveable at pleasure; for, when they make any movement, such as sitting up to cough or spit, and overbalance themselves, the sudden perpendicular descent causes a violent rush of blood to the head, which immediately extinguishes life.

**HYDROPHOBIA.**—A copious draught of vinegar, at morning, noon, and night, is said to be a cure for hydrophobia.

**TO MAKE LEECHES BITE.**—The leech which it is intended to apply is to be thrown into a saucer containing fresh beer, and is to be left there till it begins to be quite lively. When it has moved about in the vessel for a few moments, it is to be quickly taken out and applied. This method will rarely disappoint expectation; and even dull leeches, and those which have been used not long before, will do their duty. It will be seen with astonishment how quickly they bite.—*Medical Gazette.*—From a return made by the Custom-house at Grenoble for the first six months of the present year, it appears that 5,660,800 leeches have been imported into France.

**BURNS.**—It is stated by the *Medical Times*, that a Mr. Peppercorne has cured several cases of severe burns of the hand by the application of a single layer of lint soaked in a saturated solution of carbonate of soda. Mr. Peppercorne conceives that, besides acting as a direct sedative upon the nervous structure of the skin, it may possibly relieve pain by neutralising the acridulous quality of the perspiration as it passes off through the irritated skin. Whether the proposed remedy should have the effect here ascribed to it or not, it is, at all events, worthy of a trial, as the solution can be readily procured, and as readily applied, without the possibility of doing any harm. The carbonate of soda is one of the ingredients of soda and Seidlitz powders; it is also used in many culinary operations; and scarcely any one need be at a loss to obtain it.

**CORNS.**—The following remedy is simple and infallible, and costs nothing in pain or money. Soak the foot affected in warm water for half an hour or so, until the corn is somewhat softened—then pare it down as much as possible, and put a little common soap, say on going to bed, which should be confined to the part affected by a rag or cotton. In two or three days a complete cure will be effected. A new plaster, of Indian rubber, has been found very efficacious, by bearing off pressure from corns.

**BUNION.**—Mr. Humpage recommends that the bunion be kept constantly covered with lint dipped in warm water, this being well defended also by oiled silk. The best mode of applying the latter is to cut a strip about half an inch in width, and three or four inches long, turning it round the affected member. The lint should be changed night and morning, and any hardened outsole should be gradually peeled off. When matters are improved, the continued application of the silk will not be necessary, but the oiled silk should be constantly worn, to prevent a return of the disturbance.

**CHOLERA MORBUS OR DYSENTERY.**—Take 3d. worth of isinglass, and simmer it down in about a pint of water on a slow fire, till it is completely dissolved; when this is done, add a little milk and sugar to make it palatable; give the patient half a cupful immediately, and a spoonful every hour afterwards.

**RHEUMATISM.**—Slight cases of rheumatism are cured in a few days by feeding on asparagus; and more chronic cases are much relieved especially if the patient avoid all acids, whether in food or beverage. The Jerusalem artichoke has also a similar effect in relieving rheumatism.

**MEDICAL EFFECTS OF HOT WATER.**—In bruises hot water is most efficacious, both by means of insertion and fomentation; in removing pain, and totally preventing discoloration and stiffness. It has the same effect after a blow. It should be applied as quickly as possible, and as hot as it can be borne. Insertion of hot water will cure that troublesome and very painful thing called a wido. The efficacy of hot water in preventing the ill effects of fatigue is too well known to require notice.

**IMPURE AIR** may be detected by the following simple and satisfactory experiment by Dr. Reid. Inject a spoonful of lime into a beer-bottle with water, and place it where suspicion is attached to the quality of the atmosphere, when the presence of impurity will be tested by the appearance on the surface of a white and copious incrustation.

**TEST FOR EPSOM SALTS AND OXALIC ACID.**—To the suspected mixture, add a few drops of common black writing-ink; if the colour remains, it is Epsom salts; but if the ink in a short time turn red, it is oxalic acid.

**APPETITE.**—The following novel explanation of the causes of renewed appetite is from Professor Liebig's new work on Animal Chemistry. "The cooling of the body, by whatever cause it may be produced, increases the amount of food necessary. The mere exposure to the open air in a carriage, or on the deck of a ship, by increasing radiation and vaporisation, increases the loss of heat, and compels us to eat more than usual. The same is true of those who are accustomed to drink large quantities of cold water, which is given off at the temperature of the body, 98° 5'. It increases the appetite, and persons of weak constitution find it necessary, by continued exercise, to supply to the system the oxygen required to restore the heat abstracted by the cold water. Loud and long-continued speaking, the crying of infants, moist air, all exert a decided and appreciable influence on the amount of food which is taken."

**DRUNKENNESS.**—The following singular means of curing habitual drunkenness is employed by a Russian physician, Scriber, of Brzez-Litewski:—It consists in confining the drunkard in a room, and furnishing him, at discretion, with brandy diluted with two-thirds water; as much wine, beer, and coffee as he desires, but containing one-third of brandy; all the food, the bread, meat, &c., are steeped in brandy and water. The poor wight is continually drunk and *dort*. On the fifth day of this regimen, he has an extreme disgust for brandy; he earnestly requests other diet, but the desire must not be yielded to, until the poor wretch no longer desires to eat or drink: he is then certainly cured of his *penchant* for drunkenness. He acquires such a disgust for brandy, that he is ready to vomit at the very sight of it.

**TO RENDER ASSISTANCE IN CASES OF ACCIDENT, &c.**—We avail ourselves of the observations of an eminent surgeon of this city to make known to our readers the best course to be adopted on finding a sufferer on the road having a *fractured or dislocated leg*, or in other cases of emergency. Let him be kept on the ground until a couch, door, or gate can be procured, for in raising him up he may die from faintness or loss of blood; when a gate, hurdle, or board is procured, place it alongside him; cover it with a bed or straw, and pillows, and let men convey him home or to a neighbouring house. Send a discreet person to his surgeon and to his home who can state the nature of the accident. On no account put him into a vehicle; let him be borne home by men, for the motion of a carriage might cause splintered bones to fatally wound blood-vessels in contact with them.

**Fits.** If a person fall in a fit, let him remain on the ground provided his face be pale, for should it be fainting or temporary suspension of the heart's action, you may cause death by raising him upright, or bleeding; but if the face be red or dark-coloured, raise him on his seat, throw cold water on his head immediately, and send for a surgeon and get s vein opened, or fatal pressure on the brain may ensue.

**In hanging or drowning**, expose the chest as quickly as possible, and throw the coldest water you can procure plentifully over it, whilst the body is kept in a sitting position.

**Children in Convulsions.** Deluge the head with cold water and put the feet into warm water, till medical assistance can be fetched.

**Poison.** Give an emetic of a tea-spoonful of mustard flour in a tea-cupful of warm water every ten minutes, till vomiting ensue or medical assistance can be procured.

**Burns or Scalds.** Let the burnt part be bathed in a mixture of equal parts of turpentine and olive, or linseed oil, with a feather, till the pain abates; then dress it with common cerate, and defend it from the air.

By a proper application of these simple rules life might often be saved, whilst it is well known to medical gentlemen that what is often kindly though injudiciously done, hastens death.

Worcester.

E. A. S.

**MANAGEMENT OF BLISTERS.**—Dr. Robertson gives the following directions for the management of blisters, as the result of nearly seventeen years' experience: the blistering plaster should be spread thinly on paper or linen, not sprinkled over with powdered cantharides on the surface; but instead thereof, a few drops of olive oil rubbed on it and allowed to remain. Used in this way, he says, the blister acts speedily, and without causing irritation; with him it never produces strangury. He objects to a blister spread upon leather, because the leather, by the heat of many parts of the body, becomes dry, partially crisp, and with difficulty adheres to the skin, and thereby prevents it from acting well and generally over the whole part intended to be blistered. The blister should be spread thinly, because the outer surface only is efficient; and when it is used in a thick layer, it becomes irregular, and consequently partial in its operation. The powdered cantharides should not be sprinkled on it, because they will not add to its efficiency, as they act but slightly on the skin; but the active principle of the Spanish fly being soluble in olive oil, affords a reason for the use of the oil on the surface of the blister. Dr. Robertson concludes by remarking, that every one can make this blister for himself, of the commonest materials at a very trifling expense, and, if this be any recommendation, it will act three, four, or six times, if uninjured, and the oil gently renewed on its surface.

**Death caused by prussic acid**, says a German paper, is only *apparent*; life is immediately restored by pouring acetate of potash and common salt, dissolved in water, on the head and spine.

**MUSHROOMS.**—According to Chausarel, the application of vinegar, in cases of poisoning by mushrooms, is inadvisable, because the active principles of these plants are dissolved by it, and the parts, already inflamed by the action of the poison, are thereby still more irritated. The application of salt and ether is attended with the same disadvantage; and emetic tartar also can only be of use provided the poison has not been already absorbed. Tannin, however, which forms with many vegetable poisons an insoluble combination, is likewise an antidote for poisonous mushrooms; and Chausarel observed the best effects in several cases of poisoning by poisonous mushrooms from the application of a weak decoction of gall-nuts (one ounce of gall-nuts to one measure of water, and a sufficient quantity of mucilage), or of a solution of tannin (pure tannin from 36 to 40 grains in one measure of water).—Mr. W. H. White, a botanist, has investigated the cause of the deleterious effects of some species of mushrooms on the human frame in some countries, and not in others. In England, for example, only three species are edible; whilst in Russia, forty species, almost every variety, are used as articles of food, and many, as delicacies, constantly at the tables of the rich; and the peasants, for some months, live almost exclusively on mushrooms. The kinds there eaten are considered here, and have been proved to be, by many fatal cases, poisonous. Mr. White believes it to be not dependent upon soil or climate, but principally on the cooking; much salt being used, and care being taken not to boil two species together.

**ACTION OF WEAK ACIDS ON ELECTRO-PLATED VESSELS.**—Mr. Warrington asserts that copper vessels, such as saucepans, extract-pans, &c., silvered by the electrolytic process, are acted upon by weak acids, as lemon-juice or vinegar, if allowed to remain in them for a short time. This, he says, must arise from the deposited silver being so porous as to allow the acids to permeate its substance, and the action is most likely assisted by the formation of a galvanic current.



**WATER THROUGH LEADEN PIPES.**—On an analysis of some water from one of the departments of the Royal Establishments, at Windsor, being made, it was found that in the first sample, which was taken from the pure spring, the water was perfectly free from any trace of lead. This spring, being at some considerable distance from the place where it is required, viz., the kennel of her Majesty's hounds, it is conveyed thence through pipes of lead; on the second sample (mind, taken from the pipes!) being submitted to analysis, the quantity of lead contained therein amounted to 1-312 grs., or approaching 1½ grs. of carbonate of lead to the imperial gallon of water; there can, therefore, be but strong grounds for presuming that the disease called kennel lameness in sporting phraseology, and which now rages amongst the hounds there, is caused by the quantity of lead taken into the stomach of the poor animals; and what gives us a greater desire to promote some attention to the subject is the fact that, not only the canine race, but the human also are sufferers, as in more than one case a species of paralysis, and effects similar to the painter's colic, has attacked the attendants at the kennel.

**COPPER POISON** occurs from the use of copper saucers and perfectly tinned. If they be put away damp, or if a boiling-copper be left wet, they will become coated with poisonous crust, or verdigris. Several instances are related of whole families being poisoned by partaking of made-dishes allowed to stand and get cold in copper vessels. It appears that the acid contained in stews, as lemon-juice, though it does not dissolve copper by being merely boiled in it a few minutes, nevertheless, if allowed to cool and stand in it for some time, will acquire a sensible impregnation of poisonous matter, as verdigris, or the green band which lines the interior of the vessel. In preparing food or preserves in copper, it is not till the fluid ceases to cover the metal, and is reduced in temperature, that the solution of the metal begins. Unctuous or greasy solutions are, however, most liable to become thus impregnated with verdigris. Sir Humphry Davy asserts that weak solutions of common salt, such as are daily made by adding a little salt to boiling vegetables and other eatables in our kitchens, act powerfully on copper vessels, although strong ones do not affect them.

**ZINC MILK VESSELS.**—The following shows the danger and the folly of the practice of keeping milk in zinc bowls—a custom which has lately become very prevalent: these articles being sold with the recommendation of a larger quantity of cream being produced, owing to the galvanic action. "I would scarcely have believed," says L. Elanes, of Berlin, "that zinc vessels would again have come into use for alimentary purposes, as Vauquelin, forty years ago, proved that such were certain, after a short time, to hold a certain quantity of zinc in solution. I have found by experiment, that a solution of sugar which had stood only a few hours in the summer in a zinc vessel, contained a considerable amount of zinc salts. It has often been stated that the cream will separate more easily from milk, if the latter be kept for a short time in a zinc vessel. As, however, it is known that milk will turn acid much sooner than a solution of sugar, it is the more to be apprehended that some zinc will be dissolved, and such zinc will be the more noxious, as it is well known that even a small amount of zinc will cause spasmodic vomiting."—*Pharmaceutical Journal.*

**GILT GINGERBREAD** is poisonous, and children should be cautioned against eating the spurious gold; for it is nothing more than copper-plates with celamine, hammered out into leaves, in Germany, and sold very cheap in this country, under the name of Dutch gold, or Dutch metal. Common lozenges are freely adulterated with chalk, and coloured with poisonous substances. Last Twelfth Day, four children narrowly escaped poisoning, at Kensington, by eating the ornaments of a twelfth cake.

## RECENT DOMESTIC INVENTIONS.

**THE AMERICAN FIRE-PLACE**, is stated to save room and fuel, to furnish a convenient apparatus for cooking, and to send hot air into the interior of a room; avoid, at the same time, the steam usually arising from cooking stoves. The fire is kindled in a metal box constructed in the hearth; an air-chamber is made underneath the fire-box, and a metal plate rises perpendicularly behind it, so as to form a flue for carrying off the smoke. An opening is made in the box to admit fuel, and tubes are fixed in communication with it, to let heated air into the room. When employed for cooking, the utensils must be placed upon the top plate of the fire box, in which holes are made for the purpose of emitting heat. The inventor considers that he combines the convenience and economy of a close stove, with the pure air and perfect ventilation attained by open fire grates.

**SILVESTER'S IMPROVED OPEN FIRE GRATE**, remedies the defect in grates commonly in use—of not affording sufficient warmth to the lower part of rooms. This is done by the fire being made upon the floor, in front of which, in place of the hearth, are radiating bars confined by a semi-circular front: these bars become conductors of heat, and each bar being hollowed underneath, allows of the free passage of air; and the ashes fall into a recess truck under the partition bars forming the fire-place. The chimney, or fire-place opening, is made tight to the opening of the grate in front. The smoke is discharged vertically, and is screened in great measure by moveable shutters resting on centres at the sides in a rack, so that the chimney opening may be adjusted in level and area at pleasure. The chamber part not occupied on each side behind the grate-front is closed at the upper part from any communication with the chimney. This portion of the fire-place recess being open to the room, the sides of the chimney and mass of heated matter of the body of the grate become an important additional warming surface. We have, therefore, in this grate, a warm hearth which does not require a fender, a safe fire free from the dust of ashes, none of the draught usually in rooms with open fires, a remedy for all the usual causes of smoky chimneys, and a most important saving of fuel; advantages proved by the experience of two or three years' use.

**BURRIDGE AND HEALRY'S SYLVESTER COOKING APPARATUS**, is remarkable for its simplicity, little waste of fuel, and radiation of the heat. It comprises a boiler, oven, and open roasting bars, to which may be added saucers, &c. When not wanted for roasting, the fire-place is shut up; and when not required at all for cooking, the doors of the fire-place, oven, and flue, are shut up, though the fuel in the fire-place keeps ignited, but burns no faster than in an Arnot stove; so that the ebullition of the boiler is kept under. An apparatus of the smallest size will roast a joint of twenty pounds; and the oven has a passage of air through it, so as to produce the difference between roasting and baking.

**BATH HEATEN BY GAS.**—Dr. Fyfe suggests, that where a bath is required in a bed-room, it may easily be heated by gas, by attaching a flexible pipe to a tube in the room, so that it will supply from 30 to 40 feet of gas per hour; six rose-jet burners, with 16 holes each, will be sufficient. In his trials, Dr. Fyfe used a bath, in which were put 24 gallons of water at 50°; beneath the bath, and at a little distance from it, there was passed a tube of about two inches diameter, with six rose-jet burners attached to it. The water was kindled, and in three quarters of an hour, the water was brought to 100°; gas consumed, 17 feet; cost, nearly two-pence.

**LUCIFER MATCHES** should be kept out of the way of children, who have been known to eat the composition, from its sweet taste, and others to be poisoned by the phosphorus contained in it.

**COFFEE.**—Chicory is detected by shaking the suspected article with cold water, in a glass vessel; if the coffee be pure it will swim and give little or no colour to the liquid, but if chicory be present it sinks to the bottom, and communicates a pretty deep red tint to the water. Roasted corn may be detected by adding tincture of iodine to a cold decoction of the suspected coffee, which will produce a blue colour in the liquid.

**MUSTARD.**—The inferior varieties of mustard are often composed, almost entirely, of flour, turmeric, ginger, and cayenne pepper. Turmeric is detected by a solution of potash, soda, or ammonia, which strikes a deep brown colour when the mustard is diffused in water. Flour is discovered by iodine, which when added to a decoction of mustard, gives it a deep blue colour. When the quantity of flour is large, it forms a tough paste with water.

**SAUSAGES**, made in a peculiar way, are much used in Wurtemberg. When ill prepared, they become poisonous, and their effects are invariably fatal. The patient gradually dries up into a sort of mummy, and, after weeks, or months of misery, he dies. But there is no poisonous substance to be detected in the sausage. It is, according to Professor Liebig, in a peculiar state of fermentation, which is not checked by the action of the stomach, and which is, unfortunately, communicated to the blood. It never ceases till every part capable of solution has been destroyed, and death, of course, must follow. But, as it appears that the poisonous sausages may be rendered quite safe by boiling, and by other simple means of arresting fermentation, we may hope that the true theory of the poison will lead to a successful treatment of this frightful accident, which, unhappily, is very frequent.

**FISH POISON** is rare, except when the mussel or the oyster is in an unhealthy state, or beginning to putrify. The symptoms are a sensation of weight at the stomach, nausea, thirst, vertigo, itching over the skin, hicough, and faintness, with cold, clammy perspirations. Several persons having been lately poisoned at Bayonne and St. Esprit, by eating mussels, the municipal authorities have issued an order, suspending the sale of this shell-fish.

**WHISKEY.**—It has lately been ascertained that illicit distillers and vendors introduce *creosote* into common spirit, to give it the celebrated peat-reek flavour of Irish whiskey. This adulteration is of the most noxious nature; for sudden death would be the certain result of such spirit being taken in any quantity, particularly in an excited state of the system.

**POTATO BRANDY** is known to produce deleterious effects upon the human frame, as delirium tremens, idiocy, &c. Not only is the rectification of this spirit very carelessly conducted, but it is often obtained from potatoes which are either rotten, or have begun to germinate.

**VITRIOL ACCIDENTS** are not uncommon in kitchens, as, when oil of vitriol (improperly used for cleaning copper vessels) is let fall upon the hands, &c. In this case, if a little soda or potash be dissolved in water, or some fresh soap-hollers' lees, and be instantly applied, no injury whatever will occur to the person or clothes.

**RELIEF FROM EXCESSIVE HEAT.**—By placing a gas-light within the chimney, immediately over a fire-place, it will greatly tend to moderate the heat of the apartment. A lighted lamp suspended in the chimney will have a similar effect; and even a lighted candle set in the fire-place of a bed-room will render it more comfortable during hot weather.

Never enter a sick room in a state of perspiration, as the moment you become cool, your pores absorb. Do not approach contagious diseases with an empty stomach, nor sit between the sick and the fire, because the heat attracts the thin vapour.

**JEFFREY'S PNEUMATIC STOVE**, projects holdly into the room, so as vastly to increase the field of radiation, instead of the fire being immured, and three-fourths of the heat lost up the chimney. This important point of bringing the fire forward, without risking the entrance of smoke into the room, is effected by tubes ranged behind the fire, and which, by communicating with an air-box below, throw into the room plenty of warm fresh air. The smoke current, passing through the intervals of the tubes, warms the air inside, and it is discharged into the room over the chimney-piece.

**THE LUTON STOVE**, consists of one box or chamber enclosed within another; and the fuel being placed in the inner chamber, which has fire-bars at the bottom, the atmospheric air introduced from above, descends down, and the products of combustion pass away by side passages to the chimney.

**HEINKE'S (ARNOTT'S) STOVE**, costs but twopence per day for fuel, and when once charged, will not require any more attention for ten hours, as the stove regulates itself by the thermometer.

**GREEN'S TERRA-COTTA STOVE**, generally resembles Arnott's Thermometer Stove; but, in place of making the outside of the stove of iron, Mr. Green substitutes a cylinder of terra-cotta, or earthenware. Two or three consecutive cylinders of earthenware are also introduced between the fire-pot and the external case, so as to equalize the heat as much as possible, and prevent any danger of cracking the outer case of the stove.

**FIRE FROM STEAM-WARMING.**—Mr G. Gurney states, from experiment, that steam under high pressure is partially decomposed, and that in a state of gaseous vapour, it is capable of heating the iron flues to such an extent that linen is charred, gunpowder fired, and metal fused by it. Mr. Gurney suggests the use of fusible metal in some part of the pipes, as a preventive of fire; for, melting when the flues become too highly heated, it will allow the escape of the vapour, and, of course, assist in cooling the pipes.

**COOKING BY GAS** was successfully practised. Sir John Robison, by passing a current of gas, mixed with atmospheric air, through a wire vertical tube, having its upper end covered with wire-gauze, and by kindling the mixture as it escaped through the interstices, formed a convenient stove for culinary purposes; and Sir John had his kitchen fitted with stoves on this principle. Another of the most practicable modes may be described as follows:—A large burner, either round or oval, is to be provided, composed, like the argand burner, of a great number of small jets of flame. In the midst of these jets is fixed a perpendicular spit, to hold the meat to be roasted. Over the flama must be placed a cover of sheet iron, big enough at bottom to surround the jets, and contracted towards the top, so as to bring all the heat of the gas as near as possible to the meat to be roasted. This cover resembles a large funnel turned upside down, the pipe of which forms a chimney to let out the gas; the heat of which is then made to boil water, which is placed in a tin vessel over the funnel-chimney, and which may be divided into two compartments, to contain meat and vegetables, to steam potatoes, &c. Such is the ease and safety of its operation, that persons who use it are said to put their meat on the spit, light up the gas, and leave it to do its work; that they even leave the house until the hour at which experience teaches them the meat will be done, and that on their return they find their dinners ready. A gas-oven has also been invented for baking bread, &c. For cooking small joints, the application of gas is most economical; but for cooking large joints, the direct application of coal-fuel is found the cheapest.

**COCOA-NUT FIBRE** is now made into strong mats and floor-coverings, and when dyed has an ornamental appearance.



**A VERY SIMPLE KNIFE-CLEANER** may be made of two boards, twenty inches long, six inches broad, and one inch thick, joined together, but not quite close, by a hinge; two pieces of buff or belt leather are stretched over the interior surfaces, and nailed on the exterior ones; and a handle assists in holding the apparatus steady. In using it, lay powdered Flanders brick, or any similar dust, on the lower leather; shut the boards together, lay the left arm on the upper board, holding the handle; put the knife, well wiped from grease, between the leathers, and four or five rubs backwards, not sideways, will produce a beautiful polish on both sides. The shoulders and back may be polished on the part of the leather turned over.

**THE AMERICAN SCRUBBING-BRUSH** is worked backwards and forwards by a lever, operating in the manner of a pump-handle. A flat board, on which the operator stands, is placed upon the floor on castors, and from this rise two uprights to sustain the pin that is the fulcrum of the lever. To the lower end of this lever, the scrubbing-brush is attached.

**KALOMINE**, is a new and inodorous paint, invented by Miss Fanny Corbeaux. It is free from any offensive smell, dries in a few hours, and is said to be more durable than oil paint, more agreeable to the eye, and not prejudicial to the health: a room painted with it one day, may be inhabited the next.

**NEW WATER COLOUR.**—A lady at Palermo wishing to make a drawing of the beautiful Bourgainvillea Spectabilis, was at a loss for a rose-colour that would match it. It struck her, however, that the juice of the Opuntia fruit would do, and upon trial she found it yield a most beautiful rose-colour, which was as readily worked as if it had been prepared in a colour-shop; and now, after a year, it is as fresh as ever. It would be worth while to get the Sicilians to make up the juice of the Opuntia into cakes.

**ELECTRO GILDING AND PLATING** have already produced some very surprising results. "There is an establishment in London (Messrs. Elkington's) and we believe others, both in London and Birmingham, where a dazzling and brilliant assemblage of candelabra, candlesticks, tripods, salvers, cones, vases, cups, plates, and other articles of table furniture is to be seen, all coated with a surface of pure gold and silver by the electro process. There may be other instances more useful, but we doubt whether there is any more striking than this application of electricity. It is known that gold looks better when laid on silver than when on any other metal, and hence the value and beauty of 'silver-gilt' articles. The same, we believe, is true with regard to electro-gilding." The applications of the electro process to domestic manufactures are already very numerous; for, as things at present are, a person may, as Mr. Smee remarks, "enter a room by a door, having finger-plates of the most costly device, made by the agency of the electric fluid. The walls of the room may be covered with engravings, printed from plates originally etched by galvanism, and multiplied by the same fluid. The chimney-piece may be covered with ornaments made in a similar manner. At dinner, the plate may have devices given by electrolyte engravings, and the salt-spoons gilt by the galvanic fluid."

**SLATE FURNITURE.**—The use of slate as a material for furniture has been recently introduced, and is increasing. Tables and sideboards, wash-stands, toilets, wine-coolers, filters, and any similar articles, are now made of this material. Slate is also manufactured into panels for doors, finger-plates, paper weights, inkstands, &c. It is susceptible of much ornament, and is found to bear colours and gilding remarkably well.

### DOMESTIC HINTS.

**GELATINE.**—There has lately occurred in Paris a controversy on the use of the Gelatine of bones for hospital soup, as recommended by D'Arceet; and the most contradictory opinions as to its qualities are daily published. Professor Liebig has, we think, decided this question. He has shown that Gelatine cannot yield blood, and that by itself, therefore, it cannot support life. But he supposes that it is dissolved in the stomach, and, being conveyed in the blood to every part of the body, acts as nutriment to the gelatinous membranes and bones alone. This ingenious idea explains both how Gelatine mixed with other animal matter forms a good diet, and how it is peculiarly adapted for the sick and convalescent, in whom it acts by giving nutrition to the gelatinous tissues, and so sparing much of the energy of the enfeebled digestive system, which is thus not consumed in producing Gelatine for these tissues, but is expended in the digestion of sanguiferous nourishment. We can now readily credit the statement of D'Arceet, who has shown that in all the hospitals where the Gelatine of bones has been used as a principal, but not the only article of animal food, the patients relish it, the success of the treatment has been much increased, and the period of convalescence on the average much diminished. Now that we possess what appears to be the true theory of the action of Gelatine, it is to be hoped that the prejudice, previously very natural, which exists in this country against its use, may be overcome; and that our hospitals may participate in the benefits of D'Arceet's benevolent system, which, when successfully conducted, has likewise the advantage of superior economy.—*Quarterly Review of Liebig's new Work on Animal Chemistry.*

**MILKING OF COWS.**—A "Small Tenant Farmer" was induced to try the milking of a cow three times a day, viz., morning, mid-day, and night; and found that it answered better in hot weather, than under the old system of milking twice a day. More milk is obtained; and the cream on the mid-day's milking is twice as thick as on that milked at night. Turnips render the milk lighter, and of more easy digestion, than the common fodder; while beet-root makes it extremely rich and substantial. The convalescence of the Count of Paris, the infant grandson of Louis Philippe, is attributed to the milk of a cow, fed on turnips, having been substituted for that of his nurse; the latter having been found to be not sufficiently nutritious.

**FEEDING OF POULTRY.**—Professor Gregory, of Aberdeen, in a letter to a friend, observes:—"As I suppose you keep poultry, I may tell you that it has been ascertained that if you mix with their food a sufficient quantity of egg-shells or chalk, which they eat greedily, they will lay, *ceteris paribus*, twice or thrice as many eggs as before. A well-fed fowl is disposed to lay a vast number of eggs, but cannot do so without the materials for the shells, however nourishing in other respects her food may be; indeed a fowl fed on food and water, free from carbonate of lime, and not finding any in the soil, or in the shape of mortar, which they often eat off the walls, would lay no eggs at all with the best will in the world. Lay this to heart, and let me know in the spring if the hens lay two, or two for one."

**PAYNE'S PATENT PROCESS** salts meat in a few minutes: it is first placed in an iron vessel, from which the air is exhausted by an air-pump, brine being let in from another vessel; it is then drawn off by the air-pump, and more brine injected by a forcing-pump; and in fifteen minutes the meat is cured.

**LEMONS—HIMALAYAN METHOD OF KEEPING.**—Pluck the fruit when it has attained its full growth, but is not quite ripe. It is then buried in deep holes in the ground, lining the pits, and covering the fruit with dry leaves. In this situation, it attains maturity, and if not bruised in packing, retains its form and freshness for a considerable period.

**AMERICAN CLOCKS.**—A correspondent of the *Hartford Journal*, from Bristol, writes:—"The amount of capital employed in this branch alone is some three or four hundred thousand dollars, and the business gives employment to nearly four hundred mechanics. The manufacture of clocks has greatly increased within the last five years, although for fifteen years prior probably one million were made and profitably disposed of. We have every facility for manufacturing, and the vast improvements recently effected in machinery have done wonders for the business. The division of labour is well understood, and carried out to a nicety, otherwise it would be impossible to manufacture and afford brass mahogany cased clocks for the low price of three, four, or five dollars each, which is now done. More than ten thousand have been sent to England alone within the last eighteen months."

**HEATING BY GAS.**—Sir John Robinson devised a method of generating heat by burning gas through a tube of about six inches diameter, open at the lower end, the top end being covered by wire-gauze, similar to that of the Davy safety-lamp. This process Sir John has used in his house for several years, successfully, as a substitute for coal. The wire gauze is liable to be destroyed under a long-continued intense heat; but this may be obviated by sprinkling a small quantity of sand upon it. Yet, heating by gas is elsewhere stated by Sir John Robinson to be most expensive, the least efficient, and with one exception, the most insalubrious mode of warming apartments that can be resorted to.

**CHLORIDE OF LIME**, moistened with water, and applied to ink-spots on silver, &c., will remove them far more effectually than "salt of lemons."

**A NEW STYLE OF PAPER-HANGING** has been introduced at Liverpool, from Switzerland. The character of the design is Florentine; the ground-work is white satin; the walls are divided into compartments, by rich gold-coloured styles, representing intricate carving; the panels are niches, with drawings of deer, lions, swans, &c., each forming a complete picture in gorgeous gold borders, somewhat in the Louis Quatorze style; the alternate panels are filled with filagree work, interspersed with flowers and gems; and altogether of exquisite design and execution. An exceedingly rich border runs round the top and bottom of the room.

**THE PATENT RELIEVO LEATHER HANGINGS**, panels, imitative oak carvings, &c. are of beautiful design; indeed, it is difficult to discover that some of the patterns are not carvings on wood—so closely imitated are the chisel mark, the grain of the wood, the undercutting, and its assimilation of colour, to the best oak and walnut carving of the Middle Ages. The hangings, friezes, heads, fruits, &c. in the various rich and elaborate styles for decoration prevalent in Spain, Italy, France, and Germany, as well as our own "Elizabethan," are here deceptively imitated. The cost of these ornaments is about half the price of carvings in wood. Esquilant's leather architectural and other ornaments, as fruits and flowers, are prepared in metal moulds, and soaked in varnish, and then forcibly cold-pressed into the mould.

**VIGNOLLES'S CARPET TAPESTRY**, is made on the principle of the ancient mosaics, being composed of innumerable transverse sections of woollen threads. No painting, no colouring is used; all the effect is produced by ends of worsted about one-eighth of an inch long standing vertically, one end being seen, and the other cemented by Indian-rubber to a cloth. From the facility of reproduction, this fabric is likely to come into general use for carpets, rugs, curtains table and chair covers, &c.

**KITCHEN GARDEN ECONOMIES.**—A very delicate vegetable, quite equal to Seakale or Asparagus, and of a taste intermediate between the two, may be easily raised in any quantity by any one who has a few square yards of garden ground, at several different times during the winter and spring, according as the succession of crop is required. Plant ten or twelve Turnips (any delicate kind) as closely as possible, and cover them with a box or Seakale pot: heap fermenting stable litter over and around, as for Seakale; and in about the same time or a fortnight more, a crop of blanched Sprouts will make their appearance. The crowns of the Turnips should not of course have been removed too closely. In dressing them for table, when they are about half done, pour away the water and give them some fresh; when cooked, serve them up with melted butter on toast.

**STEAM-BAKED BREAD.**—It has been known for some time at Vienna, that if the hearth of an oven be cleaned with a moistened whisp of straw, bread baked therein immediately afterwards presents a much better appearance, the crust having a beautiful yellow tint. It was thence inferred that this peculiarity must be attributed to the vapour, which, being condensed on the roof of the oven, fell back on the bread. At Paris, in order to secure with certainty so desirable an appearance, the following arrangement is practised:—the hearth of the oven is laid so as to form an inclined plane, with a rise of about 11 inches in three feet, and the arched roof is built lower at the end nearest the door, as compared with the furthest extremity. When the oven is charged, the entrance is closed with a wet bundle of straw. By this contrivance, the steam is driven down on the bread, and a golden-yellow crust is given to the bread, as if it had been previously covered with the yolk of an egg.

**INDIAN PREPARATION OF SALMON.**—The salmon are cured and packed in a peculiar manner. After having been disembowelled, they are exposed to the sun on scaffolds erected on the river banks. When sufficiently dry, they are pounded fine between two stones pressed into the smallest compass, and packed in baskets or bales of grass matting, about two feet long, and one in diameter, lined with the cured skin of a salmon. The top is likewise covered with fish skins, secured by cords passing through holes in the edge of the basket. Packages are then made, each containing twelve of these bales, seven at bottom and five at top, pressed close to each other, with the corded side upward, wrapped in mats, and corded. These are placed in dry situations, and again covered with matting. Each of these packages contains from ninety to a hundred pounds of dried fish, which in this state will keep sound for several years.

**BACON.**—As it is of some importance to cottagers to know how best to preserve their bacon, we have borrowed the following receipts from an old lady whose bacon is never rusty. For the bacon of a large pig take 14 lbs. of common salt, 1 lb. of saltpetre, and 4 lb. bay salt; with this mixture rub the bacon thoroughly, and then put it down tightly into a tub kept expressly for the purpose, having a lid to fit tightly on, and also an inner cover, which rests on the bacon, and presses it down as it diminishes. Before the salt is used it should be damped with a quart of cold hoiled water. If these precautions are attended to, the bacon will preserve its colour and good flavour for 18 or 20 months. As soon as the weather becomes hot, the brine should be poured carefully out of the tub, be boiled and well skimmed, and when cold be again poured over the bacon.

**DOMESTIC YEAST.**—Persons who are in the habit of making their own bread can easily manufacture their own yeast by attending to the following directions:—Boil one pound of good flour, a quarter of a pound of brown sugar, and a little salt, in two gallons of water, for an hour; when milk-warm, bottle it, and cork it close, and it will be fit for use in twenty-four hours. One pound of this yeast will make eighteen pounds of bread.



## HISTORICAL MEMORANDA.

1. BATTLES, SIEGES, CAPTURES; 2. EXECUTIONS, ASSASSINATIONS, &amp;c.; 3. REMARKABLE FIRES; 4. OCCURRENCES DOMESTIC; 5. OCCURRENCES POLITICAL.

## 1. Battles—Sieges—Captures.

Aboukir, March 18, 1801.  
 Acre, siege raised, May 20, 1799.  
 Agincourt, Oct. 25, 1415.  
 Albuera, May 16, 1811.  
 Alexandria, Abercromby, March 21, 1801.  
 Algiers, Pellew, Aug. 27, 1816.  
 — taken by Freoch, July 5, 1830.  
 Arcola, Nov. 19, 1796.  
 Assaye, Sept. 23, 1803.  
 Austerlitz, Buonaparte, Dec. 1, 1805.  
 Badajos, Wellington, April 6, 1812.  
 Bannockburn, June 24, 1314.  
 Bayonne, March 19, 1794.  
 Belgrade, siege of, Aug. 1717.  
 Belleisle taken, June 7, 1761.  
 Bryout, Oct. 10, 1840.  
 Blake's and Van Tromp's, June 29, 1652.  
 —, Feb. 10 and 18, 1653.  
 —, July 31, 1653.  
 Blenheim, Marlborough, Aug. 2, 1704.  
 Borodino, or Moscow, Sept. 7, 1812.  
 Bosworth Field, Aug. 22, 1485.  
 Boscaen's, with De la Clue, Aug. 18, 1759.  
 Boyne, the, July 1, 1690.  
 Bridport's, off L'Orient, June 24, 1795.  
 Bunker's Hill, June 17, 1775.  
 Busaco, Sept. 27, 1810.  
 Calcutta taken, Jan. 2, 1757.  
 Camperdown, Duocan, Oct. 12, 1797.  
 Cape of Good Hope, Jan. 10, 1806.  
 Ceylon, taken, Sept. 16, 1795.  
 Ciudad Rodrigo, Jan. 19, 1812.  
 Corunna, Moore, Jan. 16, 1809.  
 Copenhagen, April 2, 1801.  
 —, Sept. 7, 1807.  
 Cressy, Aug. 26, 1346.  
 Culloden, April 16, 1746.  
 Dettingen, June 16, 1743.  
 Dresden, Aug. 26, 1813.  
 Drogheda, stormed, Aug. 14, 1649.  
 Edgell, October 24, 1642.  
 Eresham, Aug. 4, 1255.  
 Eylau, Feb. 8, 1807.  
 Falkirk, July 22, 1298.  
 Flodden Field, Sept. 9, 1513.  
 Fontenoy, April 30, 1745.  
 Friedland, June 14, 1807.  
 Gibraltar, taken, July 23, 1704.  
 —, siege raised, Sept. 17, 1782.  
 Guatoloupe, Jan. 24, 1759.  
 Halidon Hill, July 19, 1334.  
 Hastings, Oct. 14, 1066.  
 Hawke and Conflans, Nov. 20, 1759.  
 Hexham, April 25, 1464.  
 Hohenlieden, Nov. 3, 1800.  
 Howe's, off Ushant, June 1, 1794.  
 Jaffa, Sept. 7, 1191.  
 Jamaica, ceded, May 7, 1665.  
 Jemappes, Nov. 6, 1792.  
 Jena, Oct. 14, 1806.  
 Jersey, taken, Jan. 6, 1781.  
 Ismael, by Suvarrow, Dec. 22, 1790.  
 Kilkenny, siege, 1650.  
 La Hogue, May 19, 1692.  
 La Rochelle, Feb., 1573.  
 Leyden, 1574.  
 Leipsic, Oct. 16, 1813.  
 Lincelles, Aug. 18, 1793.  
 Limerick, siege, June, 1651.  
 Londonderry, siege, 1689.  
 Lodi, May 10, 1796.  
 Lutzen, May 2, 1813.  
 Maida, July 4, 1806.  
 Malta occupied by English, Sept. 5, 1800.  
 Marengo, June 14, 1800.  
 Minden, Aug. 1, 1759.  
 Naseby, June 14, 1645.  
 Narva, Nov. 30, 1700.  
 Navarin, Codrington, Oct. 20, 1827.  
 Neville's Cross, Oct. 17, 1346.  
 Newbury, Sept. 20, 1643.  
 New Orleans, Jan. 8, 1815.  
 Nile, Nelson, Aug. 1, 1798.  
 Orleans, Oct. 12, 1428.  
 Orthes, Feb. 27, 1814.  
 Oudenarde, June 30, 1708.  
 Pampeluna, Oct. 31, 1813.  
 Paris entered by Allies, March 31, 1814.  
 Parma, July 12, 1799.  
 Poitiers, Sept. 19, 1356.  
 Pondicherry, Oct. 17, 1778.  
 Porto Bello, Nov. 22, 1739.  
 Prague, May 6, 1757.  
 Preston Pans, Sept. 21, 1745.  
 Pultowa, July 8, 1709.  
 Pyramids, the, July 21, 1798.  
 Pyrenees, the, July 23, 1813.

Quebec, Sept. 13, 1759.  
 Ramilies, May 23, 1706.  
 Rodney, with De Grasse, April 12, 1782.  
 Salamanca, July 22, 1812.  
 Saragossa, siege, July, 1809.  
 Saumarez, Spanish fleet, July 12, 1801.  
 Seringapatam, May 4, 1799.  
 Sinolensko, Aug. 17, 1812.  
 Southold Bay, May 26, 1672.  
 Spanish Armada, July 29, 1588.  
 Spanish Fleet, April 30, 1657.  
 St. Sebastian, Sept. 8, 1803.  
 St. Vincent, Jervis, Feb. 14, 1797.  
 Talavera, July 27, 1811.  
 Tewkesbury, May 4, 1471.  
 Toulouse, April 10, 1814.  
 Tournay, May 6, 1794.  
 Trafalgar, Oct. 21, 1805.  
 Ulm, June 21, 1800.  
 Vienna, by Buonaparte, May 13, 1809.  
 Vimiera, Aug. 21, 1808.  
 Vittoria, June 21, 1813.  
 Wagram, July 6, 1809.  
 Warren's Engagement, March 13, 1806.  
 Waterloo, June 18, 1815.

## 2. Executions—Assassinations, &amp;c.

André, Major, Oct. 2, 1780.  
 Armatignac, at Paris, June 12, 1418.  
 Artveldt, Jacob, at Ghent, July 26, 1345.  
 Becket, Archbishop, Dec. 29, 1170.  
 Blantyre, Lord, Sept. 27, 1830.  
 Boleyn, Anne, May 19, 1536.  
 Bruce, Thomas and Alexander, 1307.  
 Buckingham, D., by Felton, Aug. 23, 1628.  
 Byng, Admiral, March 14, 1757.  
 Catherine Howard, Q., Feb. 13, 1540.  
 Capo d'Istria, Count, Oct. 9, 1831.  
 Charles I., K. of England, Jan. 30, 1649.  
 Charles XII., K. of Sweden, 1718.  
 Colignac, the, at Paris, Aug. 24, 1572.  
 Cook, Captain, Feb. 14, 1779.  
 Cranmer, Archbishop, Mar. 21, 1555.  
 Cromwell, Thomas, July 28, 1540.  
 Despard, Colonel, Feb. 21, 1803.  
 Dodd, Rev. Dr., June 27, 1777.  
 Drogheda Massacre, Oct. 11, 1649.  
 Duke de Berri, Feb. 13, 1820.  
 Edward II., K. of England, Sept. 21, 1327.  
 Edward V., K. of England, June 22, 1483.  
 Enghien, Duke d', March 21, 1804.  
 Essex, R., Earl of, Feb. 25, 1601.  
 Fauntleroy, Nov. 30, 1824.  
 Grey, Lady Jane, Feb. 12, 1554.  
 Guy Fawkes, Jan. 31, 1606.  
 Gustavus III., K. of Sweden, March 16, 1792.  
 Hastings, Lord, June 13, 1483.  
 Henry IV., K. of France, May 14, 1610.  
 Hofer, Andrew, shot, Feb. 20, 1810.  
 Huskisson, Mr., by accident, Sept. 15, 1830.  
 Joan of Arc, May 30, 1431.  
 Kleber, Gen., in Egypt, June 14, 1800.  
 Laud, Archbishop, Jan. 10, 1645.  
 Louis XVI., Jan. 21, 1793.  
 Lovat, Lord, April 9, 1747.  
 Mary, Queen of Scots, Feb. 8, 1587.  
 Monmouth, Duke of, July 15, 1685.  
 More, Sir Thomas, July 6, 1535.  
 Murat, King of Naples, Oct. 13, 1815.  
 Ney, Marshal, Aug. 16, 1815.  
 Park, Mungo, in Africa, 1801.  
 Paul, Emperor of Russia, March 24, 1801.  
 Peter III., of Russia, July 17, 1761.  
 Percival, Spencer, May 11, 1812.  
 Perkin, Warbeck, Nov. 16, 1499.  
 Protestants, at Paris, Aug. 24, 1752.  
 Raleigh, Sir Walter, Oct. 29, 1618.  
 Ridley and Latimer (Bps.), Oct. 16, 1555.  
 Rizzio, David, March 9, 1566.  
 Robespierre, Aug. 28, 1794.  
 Russell, Lord, July 21, 1683.  
 — V., murdered, May 5, 1840.  
 Sharpe, Archbishop, May 3, 1679.  
 Sidney, Algernon, Dec. 7, 1683.  
 Somerset, Duke of, Jan. 22, 1552.  
 Stafford, Viscount, Dec. 29, 1683.  
 Stafford, Earl, May 12, 1641.  
 Thistlewood and others, 1820.  
 Wall, Governor, Jan. 28, 1802.  
 Wallace, Sir William, Aug. 23, 1305.  
 Wexford, Massacre at, Oct. 12, 1649.

## 3. Fires, Remarkable.

Argyle Rooms, Feb. 5, 1830.

Astley's Amphitheatre, 1794, 1803, and 1841.  
 Cumberwell Church destroyed, Feb. 7, 1841.  
 Canton, 10,000 houses, Oct., 1833.  
 Coveut Garde Theatre, Sept. 20, 1808.  
 Custom House, 1666, and Feb. 12, 1812.  
 Devonport Dock Yard, Sept. 27, 1840.  
 Drury Lane Theatre, Feb. 24, 1809.  
 Dublin, Aug. 10, 1833.  
 Edinburgh, June and Nov., 1824.  
 English Opera House, Feb. 16, 1830.  
 Glasgow Theatre, Jan. 1829.  
 Gordon Castle, July 13, 1827.  
 Greenwich Hospital Chapel, Jan. 2, 1789.  
 Houses of Parliament, Oct. 16, 1834.  
 Kingstown, Jamaica, Feb. 8, 1782.  
 Liverpool, Sept. 14, 1802, and Jan. 1, 1833.  
 London, the Great Fire, Sept. 1666.  
 London Bridge, 3000 persons, July 10, 1212.  
 —, Feb. 11, 1632.  
 —, Tower (the Armoury and Round Tower), Oct. 30, 1841.  
 Moscow, the Burning of, Sept. 14, 1839.  
 New Orleans, 1788.  
 New York, 674 houses, Nov. 15, 1835.  
 Opera House, June 17, 1788.  
 Plymouth Dock Yard, Sept. 27, 1840.  
 Portsmouth Dock Yard, 1760, 1770, 1776.  
 Royal Exchange, Jan. 10, 1838.  
 Sheerness, 50 houses, Jan. 4, 1830.  
 Southwark, 600 houses, 1676.  
 Woolwich Arsenal, March 22, 1802.  
 Wynatt House, Feb. 19, 1841.  
 Westminster Abbey, the Great Tower, July, 1808.  
 York Minster, by Martin, Feb. 2, 1829.  
 —, accidentally, May 20, 1840.

## 4. Occurrences.

Acts of Parliament first printed, 1509.  
 Antiquarian Society Charter, Oct. 26, 1751.  
 Almanacs, duty repealed, July 27, 1834.  
 Arkwright's first patent, 1769.  
 Arrest under mesne process abol., Aug., 1838.  
 Babington's conspiracy, 1586.  
 Balloon, first ascent in, Nov. 23, 1782.  
 Bank of England founded, April 25, 1694.  
 Bank notes of £1 issued, March 9, 1797.  
 Baronets first created, 1608.  
 Bath, Order augmented, Jan. 22, 1815.  
 Bazaar first opened in London, 1815.  
 Bible Society, British and Foreign, 1801.  
 Bill of Rights passed, 1689.  
 Birmingham, riots at, July 14, 1791.  
 Bishops (7) sent to the Tower, June 8, 1688.  
 Blood, circulation of the, discovered by Harvey, 1628.  
 Bread, assize of, first statute, 1202.  
 — abolished, 1815.  
 Bristol, riots and incendiarism at, Oct. 29—31, 1831.  
 British Museum instituted, April 5, 1753.  
 Cade's Insurrection, June 17, 1450.  
 Calcutta, confinement in the Black-hole at, 1756.  
 Canals in England, first act for, 1755.  
 Cannon first used, 1346.  
 Cash payments at Bank suspended, March 17, 1797.  
 Catholic Relief Bill passed, April 12, 1829.  
 Cato-street conspiracy, Feb. 23, 1820.  
 Chelsea Hospital founded, March 12, 1682.  
 Christ's Hospital founded, 1552.  
 Cholera, public measures against, January 17, 1830.  
 Clergy, benefit of, abolished, 1827.  
 Clergy Convocation, priviledge reduced, 1716.  
 Clocks and dials set up in churches, 618.  
 Coaches first used in England, 1555.  
 Cold Bath Fields riot, May 12, 1833.  
 Common Prayer Book enacted, Jan. 7, 1549.  
 Congreve Rockets invented, 1803.  
 Conventi Parliament, 1660, 1668.  
 Convicts at Bot Bay, first arrival, 1788.  
 Corporation and Test Acts repealed, May 9, 1828.

Corporation Act, Dec. 20, 1661.  
 Coveanters, March 1, 1638.  
 Cromwell made Protector, Dec. 12, 1658.  
 Crosses, monumental, first erected, 1290.  
 Curfew, introduced, 1068; abolished, 1160.  
 Despard's conspiracy, Jan. 16, 1803.  
 Domesday Book, compiled, 1081.  
 Engravings on copper, 1460.  
 — wood, by Durer, 1521.  
 Excise duties, the first, 1643.  
 Exeter Change, demolished, Dec. 24, 1829.  
 Franking of Letters abolished, Jan. 10, 1840.  
 Frosts, great, in England, 1740, 1760, 1789, 1814.  
 Garter, Order instituted, 1349.  
 Gas Light instituted, June 5, 1807.  
 Gazette first printed, Nov. 7, 1665.  
 Glass first made in England, 664.  
 Gold first coined in England, 1257.  
 Greenwich Hospital instituted, 1694.  
 — Observatory used as a meridian, 1679.  
 Guildhall of London built, 1410.  
 Gunpowder invented by a monk, 1340.  
 — plot, Nov. 5, 1605.  
 Habeas Corpus Act, May 27, 1679.  
 Hackney coaches first established, 1693.  
 Halfpence and farthings first coined, Aug., 1672.  
 Hardy, Thomas, acquitted, Nov. 5, 1794.  
 Hastings' (Warren) trial, Feb. 15, 1783, to April 25, 1795.  
 Hops first cultivated in England, 1524.  
 Hungerford Market opened, July 2, 1833.  
 Ireland subjugated, Oct. 7, 1175.  
 — the great rebellion, 1798.  
 — Union with Great Britain, Jan. 1, 1801.  
 Irish Church, act for altering, 1833.  
 Judges itinerant, 1176.  
 Justices of Peace commissioned, 1305.  
 Kalendar, New Style estab., Sept. 2, 1552.  
 Ket's rebellion, July 6, 1549.  
 King's College incorporated, Aug. 14, 1829.  
 Latin abolished in law proceedings, 1730.  
 Loans, Parliamentary, origin of, 1382.  
 Locusts, swarm in London, Aug. 4, 1748.  
 London, first lighted with lamps, 1681.  
 — Bridge opened, Aug. 1, 1831.  
 — Docks, Jan. 30, 1803.  
 — Tower of, built, 1080.  
 — University College, opened, 1828.  
 Long Parliament, dissolved, Jan. 24, 1679.  
 Lotteries, estab., 1693; abol., 1826.  
 Loyalty Loan, of £18,000,000, Dec. 5, 1796.  
 Magna Charta granted, June 19, 1215.  
 Mail coaches first set up, 1784.  
 Manchester Railway open, Sept. 15, 1830.  
 — riot at, Aug. 17, 1819.  
 Mariner's compass discovered, 1302.  
 Marriage and Registration Acts, 1836.  
 Massacre of Glencoe, Feb. 13, 1691.  
 — of Protestants in Ireland, Oct. 23, 1641.  
 Meal Plot, 1680.  
 Monasteries, dissolution of, March, 1536.  
 Monmouth's rebellion, June, 1685.  
 Mortmain, Statute of, 1279.  
 Municipal Corporations Act, Aug. 28, 1835.  
 Musical notes invented, 1070.  
 Mutiny in the fleet, April to June, 1797.  
 Nelson's, Lord, funeral, Jan. 9, 1806.  
 New River finished, 1641.  
 — Style, adopted in England, Sept. 2, 1752.  
 O. P. riot at Covent Garden Theatre, 1809.  
 Oxford's attempt to shoot the Queen and Prince Albert, June 10, 1840.  
 Panorama, invented by Barker, 1788.  
 Paper first made in England, 1588.  
 — Imperial, Jan. 22, 1801.  
 — Houses of, burnt, Oct. 16, 1834.  
 Parliamentary Reform Act, June 7, 1832.  
 Parochial Registers first appointed, 1533.



*Occurrences (continued.)*

Parliament, first English, Jan. 29, 1269  
 Peel's bill for resumption of cash payments, 1819.  
 Pictures first exhibited at Somerset House, 1769.  
 Pins first used by ladies, 1543.  
 Plague in London, 1603 and 1665.  
 Police, Metrop., established, Sept. 1829.  
 Population Census, May 30, 1831.  
 — July 1, 1841.  
 Postage, General, at a Penny, Nov. 10, 1840.  
 Post Office, New, opened, Sept. 23, 1829.  
 Prince of Wales, the first, 1284.  
 Printing, the art discovered, 1436.  
 Quaker, first sent to Parliament, Feb. 15, 1833.  
 Quakers, affirmation by, substituted for oath, 1696.  
 Queen Caroline's Trial abandoned, Nov. 10, 1820.  
 Railway Act, the first, May 22, 1801.  
 Regency of George Prince of Wales, Jan. 8, 1810.  
 Riots in London (no popery), June 2, 1782.  
 Royal Exchange built, 1561.  
 — burnt, Jan. 10, 1838.  
 Royal George, foundered at Spithead, June 28, 1782.  
 — Society instituted, Dec. 30, 1660.  
 — Humane Society instituted, 1774.  
 Rye House Plot, 1683.  
 Safety Lamp, by Davy, 1815.  
 Sanctuaries for Debt abolished, 1697.  
 Saving Banks enacted, 1816.  
 Septennial Parliaments enacted, 1715.  
 Small Pox, inoculation for, 1721.  
 South Sea Bubble, 1720.  
 Spa Fields riots, Dec. 2, 1816.  
 St. James's Park made public, 1668.  
 St. Paul's rebuilt by Wren, 1710.  
 Stamp duties first inst., June 23, 1694.  
 Star Chamber Court abolished, 1641.  
 Steam applied to printing the "Times" Nov. 29, 1814.  
 Tea first used in England, 1666.  
 Telescopes invented, 1590.

Tobacco brought to England, 1585.  
 Transports first sent to Botany Bay, Jan. 14, 1788.  
 Turnpike gates first erected, 1663.  
 Union with Ireland, Jan. 1, 1801.  
 Vaccine Nat. Institution, Jan. 18, 1809.  
 Watches brought to England, 1597.  
 Waterloo Bridge opened, June 18, 1817.  
 Wat Tyler's insurrection, June, 1381.  
 Westminster Bridge opened, 1750.

*5. Occurrences (Political), Treatises, and Geographical Discoveries.*

Aix-la-Chapelle Treaty, April 30, 1748.  
 America discovered, Oct. 23, 1492.  
 — Stamp Act repealed, March 18, 1766.  
 — First Congress, Oct. 5, 1775.  
 — Union and Independence declared, July 14, 1776.  
 — Treaty with England, Jan. 4, 1784.  
 — declaration of war against England, June 18, 1812.  
 Austria, first title of Emperor of, Aug. 11, 1804.  
 Azores discovered by the Portuguese, 1448.  
 Barrow's Straits discovered, 1819.  
 Bastille in Paris destroyed, July 14, 1789.  
 Bavaria made a kingdom, Jan. 1, 1806.  
 Belgium, independence of, Oct. 1, 1830.  
 — Leopold, King of, June 20, 1831.  
 Berlin Decree, Nov. 21, 1806.  
 Bermudas discovered, 1527.  
 Bernadotte, Crown Prince of Sweden, Aug. 21, 1810.  
 Buonaparte First Consul, Dec. 13, 1799.  
 — Emperor of the French, May 18, 1804.  
 — his Milan Decree, Dec. 17, 1807.  
 — marries Maria Louisa, April 2, 1810.  
 — sent to Elba, 1814.  
 — returns from Elba, March 1, 1815.  
 — 2nd abdication, June 22, 1815.

Buonaparte dies at St. Helena, May 5, 1821.  
 Bourbon Family restored, July 8, 1815.  
 Brazil discovered, April 21, 1500.  
 Brussels, revolution at, Aug. 25, 1830.  
 Campo Formio, treaty of, Oct. 17, 1797.  
 Canada, reduction of, 1760.  
 Canary Isles discovered, 1364.  
 Cape of Good Hope discovered, 1486.  
 Cardinals first elected, 308.  
 Charles X. of France dethroned, July 30, 1830.  
 Christophe crowned at Haiti, June 2, 1811.  
 Confederation of the Rhine, July 12, 1806.  
 Convention of Reichenbach, July 27, 1790.  
 — Pilnitz, Aug. 27, 1790.  
 — Clutra, Aug. 30, 1808.  
 — Toplitz, Oct. 8, 1813.  
 Council of Trent, 1549.  
 Crusade, the first, 1094.  
 Cuba discovered by Columbus, 1492.  
 Dominica discovered, Nov. 3, 1493.  
 Edict of Nantes, 1598.  
 — revoked, Oct. 24, 1685.  
 Ferroe Islands discovered, 861.  
 French, Louis Philippe made King of, Aug. 10, 1830.  
 — Revolution, July 14, 1789.  
 — Kalendarabol, Jan. 12, 1806.  
 Germanic Confederation, 1815.  
 Germany, empire dissolved, Aug. 6, 1806.  
 Greece, declared independent, Jan. 13, 1822.  
 Greenland discovered by Icelanders, 950.  
 Hanover made a kingdom, Oct. 12, 1814.  
 Holy Alliance formed, Sept. 26, 1815.  
 Ionian Islands, under protection of England, Nov. 5, 1815.  
 Janissaries abolished, June 16, 1826.  
 Japan discovered, 1542.  
 League of Cambray, Dec. 10, 1508.  
 Louisiana ceded to France, Oct. 1, 1800.  
 — sold to United States, Jan. 23, 1803.

Madagascar discovered by Almeida, 1506.  
 Madeira discovered by Masham, 1344.  
 Mamelukes, massacre of, at Cairo, March 1, 1811.  
 Mexico discovered, 1518.  
 Netherlands, made a kingdom, March 16, 1815.  
 — disunited into Belgium and Holland, June 4, 1831.  
 Newfoundland discovered, June 24, 1494.  
 New Holland discovered, 1525.  
 New Zealand discovered, 1642.  
 — Sovereignty assumed by England, March 21, 1841.  
 Norway passed to Sweden, Dec. 4, 1814.  
 Otaheite discovered, 1765.  
 Paris, Bastille destroyed, July 14, 1789.  
 — Allies enter, March 31, 1814.  
 — Three days contest, July 27, 1830.  
 Peace of Ryswick, Sept. 30, 1697.  
 — Utrecht, 1713.  
 — Rastadt, March 11, 1798.  
 — Luneville, Feb. 9, 1801.  
 — Amiens, March 27, 1802.  
 — Tilsit, July 7, 1807.  
 — Vienna, Oct. 14, 1809.  
 — Paris, June 3, 1814.  
 — General Treaty of, Nov. 20, 1815.  
 Pope driven from Rome, Feb. 15, 1798.  
 St. Domingo, independence of, Nov. 30, 1798.  
 St. Helena discovered, 1502.  
 Saxons came into England, 449.  
 Saxony made a kingdom, Dec. 20, 1806.  
 Scottish Rebellion, 1745.  
 Sicilian Vespers, March 30, 1282.  
 Sierra Leone, settlement at, Dec. 9, 1786.  
 Slave Trade abolished, June 5, 1806.  
 Uln, capitulation of, Oct. 19, 1805.  
 Van Diemen's Land discovered, 1616.  
 Venice ceded to Austria, Dec. 9, 1797.  
 Vienna, treaty of, Jan. 23, 1815.  
 Westphalia, Jerome Bonaparte, King of, Aug., 1807.  
 Wurtemberg made a kingdom, Jan. 1, 1806.

## SUMMARY

OF THE POPULATION OF GREAT BRITAIN, AND ISLANDS IN THE BRITISH SEAS.  
COMPARATIVE POPULATION.

	1801.	1811.	1821.	1831.	1841.	Males.	Females.
England .....	8,331,434	9,538,827	11,261,437	13,091,005	14,995,508	7,321,875	7,673,633
Wales .....	541,546	611,788	717,438	806,182	911,321	447,533	468,788
England and Wales .....	8,872,980	10,150,615	11,978,875	13,897,187	15,906,829	7,769,408	8,137,421
Scotland .....	1,599,068	1,813,688	2,093,456	2,365,114	2,628,957	1,246,427	1,382,530
GREAT BRITAIN .....	10,472,048	11,964,303	14,072,331	16,262,301	18,535,786	9,015,835	9,519,951
Islands in the British Seas .....	....	....	89,508	103,710	124,079	57,598	66,481
TOTAL .....	....	....	14,161,839	16,366,011	18,659,865	9,073,433	9,586,432

\* \* This Summary includes only such part of the Army, Navy, and Merchant Seamen as were on shore in the kingdom; and excludes Travellers by Canals and Railroads, which latter are taken at 4896.

## UNITED STATES OF AMERICA.

## THE FOLLOWING IS A RECENT CENSUS OF THE UNITED STATES OF AMERICA.

Free White .....	{ Males .....	7,249,266	14,189,108
	{ Females .....	6,939,842	
Free Coloured .....	{ Males .....	186,476	386,245
	{ Females .....	199,769	
Slaves .....	{ Males .....	1,246,408	2,487,213
	{ Females .....	1,240,805	

Persons on board Vessels of War .....

17,062,566  
6,100

Total .....

17,068,666

## TABLE.

## SHOWING THE NUMBER OF HOUSES INHABITED, UNINHABITED, AND BUILDING, IN ENGLAND AND WALES, FROM 1801 TO 1841; AND THE INCREASE PER CENT. IN UNINHABITED HOUSES.

## HOUSES.—ENGLAND.

Census.	Inhabited.	Uninhabited.	Building.	Census.	Increase per Cent. in the Inhabited Houses.	Increase per Cent. in the Population.
1801	1,467,870	63,965	—	1801 to 1811	14.3	14.5
1811	1,678,106	47,925	15,189	1811 to 1821	16.3	17.5
1821	1,951,973	66,055	18,289	1821 to 1831	19.1	16.
1831	2,326,022	113,885	23,462	1831 to 1841	18.4	14.5
1841	2,755,710	163,077	25,704			

## HOUSES.—WALES.

Census.	Inhabited.	Uninhabited.	Building.	Census.	Increase per Cent. in the Inhabited Houses.	Increase per Cent. in the Population.
1801	108,053	3,511	—	1801 to 1811	10.5	13.
1811	119,398	3,095	1,019	1811 to 1821	14.	17.
1821	136,183	3,692	985	1821 to 1831	14.2	12.
1831	155,522	6,030	1,297	1831 to 1841	21.	13
1841	188,229	10,157	1,764			

From the above statement it will be seen, that between 1801 and 1811 the

increase per cent. on both houses and population was nearly equal; between 1811 and 1821 the increase per cent. on the population, as compared with the increase per cent. of inhabited houses, was, in England, greater by 1.2 per cent., and in Wales, during the same period, by 3 per cent.; while between 1821 and 1841, the inhabited houses increased in a much higher ratio than the population, both in England and Wales; a fair test of the improvement of the country, for if the number of inhabited houses in a country falls off in proportion to the increase of the population, it might fairly be inferred that the condition of the country was deteriorated. The number of houses building affords also a good criterion of a country's progress in wealth and industry, and a reference to the statement above given, shows, that as compared with 1811 there were 10,515 more building in 1841 (at the period when the Census was taken) than at the former period. On the other hand, the number of houses uninhabited has more than tripled since 1801, and though this great number, no doubt, partly arises from the depression of trade and commerce within the last few years, still, a great proportion of these were uninhabited in consequence of being so dilapidated, as to be unfit for occupation, and the greater conveniences and comforts of the modern houses inducing the people to desert the old and less-comfortable mansions of their forefathers.



64] TABLE, SHOWING THE NUMBER OF PERSONS OF BOTH SEXES, CLASSIFIED UNDER THE FOLLOWING HEADS OF OCCUPATION, FOR EACH COUNTY IN ENGLAND, WALES, AND SCOTLAND.

COUNTIES.	Commerce, Trade, and Manufacture.	Agriculture.	Labourers.	Domestic Servants.	In Miscel- laneous Pursuits.	Of Independ- ent Means.	Almspeople, Pension- ers, Paupers, Lunatics, and Prisoners.	Residue of Population.	Total Population.
<b>ENGLAND.</b>									
Bedford .....	14,333	14,933	2,369	4,693	958	1,720	1,292	67,638	107,936
Berks .....	16,479	21,249	5,130	11,538	3,482	4,779	2,424	96,066	161,147
Bucks .....	19,664	21,897	3,214	8,650	1,597	3,084	1,846	96,031	155,983
Cambridge .....	14,744	22,918	3,578	9,522	2,158	3,826	1,488	106,225	164,459
Chester .....	36,513	26,804	14,544	24,001	7,167	8,444	2,355	219,031	395,660
Cornwall .....	31,723	26,862	30,335	20,172	6,865	9,077	3,371	212,884	341,279
Cumberland .....	26,034	15,611	6,879	11,872	3,201	6,507	2,138	175,687	273,338
Derby .....	51,675	19,333	15,477	15,235	3,173	5,193	1,585	160,546	272,317
Devon .....	69,470	54,522	11,768	41,855	14,319	20,353	7,448	313,725	533,460
Dorset .....	19,459	19,192	4,382	9,530	3,335	5,589	2,374	111,182	175,043
Durham .....	45,179	14,382	27,580	15,111	8,549	8,231	2,043	304,229	324,284
Essex .....	32,120	51,116	9,517	20,256	6,774	7,403	3,777	214,016	341,979
Gloucester .....	65,016	31,270	21,603	31,094	9,469	16,002	4,847	252,082	431,383
Hereford .....	11,265	16,616	3,052	11,193	1,318	3,276	1,036	66,122	115,878
Hertford .....	20,181	20,145	5,218	10,193	2,133	3,696	2,027	93,614	157,207
Huntingdon .....	5,365	6,480	1,161	3,524	736	1,157	501	37,625	58,549
Kent .....	55,688	47,585	20,293	36,392	28,237	18,029	13,047	328,466	548,337
Lancaster .....	467,784	49,569	76,079	72,998	31,698	33,207	12,717	925,002	1,667,054
Leicester .....	41,554	17,092	3,676	13,347	2,612	4,377	2,134	130,845	215,867
Lincoln .....	35,140	57,561	6,147	26,534	6,022	9,099	3,269	218,830	362,602
Middlesex .....	315,259	18,164	82,240	156,731	62,155	76,369	21,083	841,635	1,576,636
Monmouth .....	17,641	8,685	16,788	7,556	2,174	2,622	737	78,152	134,355
Norfolk .....	48,821	50,365	8,291	23,118	7,717	10,358	4,840	259,151	412,664
Northampton .....	26,859	25,731	3,228	10,568	2,941	3,783	2,389	123,724	199,228
Northumberland .....	37,298	17,339	15,615	13,918	6,492	6,875	1,853	150,885	250,278
Nottingham .....	51,373	20,358	5,460	13,283	3,465	4,818	1,923	149,230	249,910
Oxford .....	17,369	20,789	3,878	9,573	2,199	3,857	1,920	102,058	161,643
Rutland .....	1,955	3,316	430	1,435	227	416	259	13,264	21,302
Salop .....	28,485	28,003	13,928	17,481	3,224	5,316	2,057	140,554	239,048
Somerset .....	56,531	44,467	20,474	29,025	6,947	14,907	5,606	257,935	435,982
Southampton .....	37,406	35,541	12,715	22,698	12,926	11,762	7,208	214,688	355,004
Stafford .....	95,581	29,120	31,917	23,331	6,606	8,173	3,669	309,107	510,504
Suffolk .....	31,672	43,858	5,212	17,817	5,083	7,490	3,901	200,131	315,073
Sussex .....	94,389	25,352	32,079	44,202	18,037	24,530	10,317	382,079	688,079
Surrey .....	20,134	35,708	10,149	22,208	6,627	8,915	4,237	182,775	290,753
Warwick .....	87,947	24,239	11,804	23,925	7,538	8,076	3,499	233,787	401,715
Westmoreland .....	7,771	6,566	1,277	4,329	770	2,375	675	32,791	56,544
Wiltshire .....	28,057	36,390	9,252	13,006	2,032	5,006	4,659	158,381	258,733
Worcester .....	39,027	23,549	9,020	11,031	3,742	5,231	1,935	139,801	233,336
York, E. Riding .....	25,297	23,506	5,304	13,075	6,007	6,038	1,717	113,992	194,936
York, City and Ainsty .....	6,994	2,179	1,202	3,345	999	1,506	513	21,493	38,321
York, N. Riding .....	23,625	28,177	4,556	13,777	3,541	6,389	1,515	122,542	204,122
York, W. Riding .....	284,446	49,297	40,681	42,400	15,218	21,550	7,150	693,329	1,151,101
Persons Travelling .....	..	..	..	..	..	..	..	5,016	5,016
Total, England .....	2,529,073	1,157,816	620,492	935,832	332,330	421,995	168,376	8,834,740	15,000,154
<b>WALES.</b>									
Anglesey .....	4,100	7,720	1,336	2,986	724	1,094	718	32,213	50,891
Brecon .....	5,789	5,589	5,418	3,706	708	1,305	393	32,095	55,603
Cardigan .....	5,657	8,996	1,566	5,865	833	2,193	665	42,961	68,766
Cardarvan .....	9,070	14,511	3,422	8,078	1,162	3,602	1,031	65,443	106,326
Cardarvan .....	6,278	9,813	5,799	5,122	1,331	2,281	401	50,068	81,093
Denbigh .....	8,334	11,441	4,699	6,668	759	1,968	931	54,126	88,865
Flint .....	6,387	5,401	5,701	4,270	1,016	1,252	395	42,407	68,919
Glamorgan .....	23,939	5,677	1,801	3,023	3,241	4,071	854	100,485	171,188
Merioneth .....	3,176	10,229	1,266	5,010	669	1,177	861	22,719	38,332
Montgomery .....	7,550	9,470	2,770	7,415	1,689	3,147	943	42,451	69,219
Pembroke .....	7,883	4,609	306	1,930	188	845	180	54,727	88,044
Radnor .....	1,970	..	..	..	..	..	..	15,328	25,356
Total, Wales .....	90,133	103,632	53,430	63,216	12,758	23,978	7,830	556,626	911,603
Isles in the British Seas .....	17,589	8,493	3,373	7,535	4,571	7,176	1,173	74,130	124,040
Total, England and Wales, and Isles in British Seas .....	2,636,795	1,269,941	677,295	1,006,583	349,659	453,149	177,379	9,464,996	16,035,797
<b>SCOTLAND.</b>									
Aberdeen .....	27,937	25,324	3,559	14,711	4,575	6,837	1,947	107,507	192,387
Argyll .....	6,194	13,187	1,515	6,071	1,917	1,401	1,039	65,017	97,371
Ayr .....	33,137	11,160	6,189	8,480	2,275	2,510	1,029	99,885	164,356
Banff .....	4,236	5,581	615	3,715	1,596	1,781	573	25,782	44,079
Berwick .....	3,608	6,173	439	2,424	676	734	573	20,044	34,438
Bute .....	1,848	1,419	156	1,089	692	511	67	9,958	15,740
Caithness .....	3,166	5,116	422	1,935	1,320	648	323	23,413	36,343
Clackmannan .....	3,144	952	1,274	674	321	387	34	12,369	19,155
Dumbarton .....	11,417	2,603	2,817	2,380	938	852	100	23,180	41,206
Dumfries .....	9,229	10,938	1,515	3,712	1,009	1,683	743	44,001	72,830
Edinburgh .....	44,479	7,756	9,126	20,664	9,718	8,634	3,538	121,539	225,454
Elgin .....	3,547	5,080	739	3,147	789	1,259	379	20,072	35,012
Fife .....	30,691	10,041	4,035	5,508	2,985	2,911	650	83,319	140,140
Forfar .....	44,709	10,078	3,717	8,696	4,050	3,599	928	94,713	170,520
Haddington .....	3,564	6,168	752	2,120	806	810	176	21,480	35,886
Inverness .....	5,847	13,746	1,309	6,990	1,923	2,044	1,220	64,720	97,799
Kinross .....	4,061	5,848	307	2,814	999	669	503	17,844	33,075
Kirkcubright .....	1,798	1,032	129	411	91	266	25	5,017	8,763
Linlithgow .....	4,025	5,256	715	3,081	579	1,175	309	25,979	41,119
Linlithgow .....	116,121	13,169	26,936	20,710	9,213	6,879	3,099	230,845	426,972
Nairn .....	4,038	2,456	2,707	1,387	371	487	98	15,328	26,872
Orkney & Shetland .....	782	1,591	136	788	224	219	81	5,396	9,217
Peebles .....	4,627	6,251	352	3,823	3,600	1,023	748	40,641	61,065
Perth .....	1,004	1,669	286	984	148	242	89	6,077	10,499
Renfrew .....	23,400	16,302	2,624	9,483	2,112	3,147	944	79,378	137,390
Ross and Cromarty .....	44,117	5,866	4,974	6,005	3,178	2,517	883	87,532	155,072
Stirling .....	4,411	10,281	631	4,967	2,508	983	741	54,163	78,685
Sutherland .....	7,416	6,530	818	2,901	526	1,102	494	26,208	46,025
Wigtown .....	1,372	902	150	546	87	149	59	4,725	7,990
Wigtown .....	14,949	6,415	4,952	4,298	1,235	1,820	346	48,042	82,057
Wigtown .....	1,166	3,380	172	1,835	566	423	386	17,054	24,782
Wigtown .....	3,511	5,167	445	2,491	633	759	108	26,081	39,195
Total, Scotland .....	473,581	229,337	84,573	158,650	62,660	58,291	21,690	1,531,402	2,620,184
Army abroad and in Ireland .....	..	..	..	..	89,230	..	..	..	89,230
Navy and Merchant Seamen afloat .....	..	..	..	..	96,799	..	957	1,467	99,223
Total, Great Britain .....	3,110,376	1,499,278	761,868	1,165,233	598,348	511,440	200,026	10,997,865	18,844,434

Col. 2, includes Farmers and Graziers, Agricultural Labourers, Farm-Servants, Gardeners, Nurserymen, and Florists. Col. 3, includes Labourers whose employment is not otherwise specified, also Miners, Quarriers, Porters, Messengers, and other persons engaged in laborious occupations. Col. 5, includes Army at home, Navy and Merchant Seamen on shore, Mariners, Fishermen, Watermen, Professional Persons, including Clerical, Legal, and Medical, Persons in the Government Civil Service, Parochial Officers, Police, &c., and other educated persons following Miscellaneous Pursuits.

\* Exclusive of 70,000 Seamen absent on the Foreign and Coasting Service, making a total of 288,630 men belonging to Great Britain, employed on the Sea and Inland Navigation.



THE  
ILLUSTRATED  
LONDON

ALMANACK



1846

LONDON

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## P R E F A C E.

THE Second ILLUSTRATED LONDON ALMANACK is now offered to the public; and it is hoped that it will not be found less worthy of a favourable reception, than that which has preceded it.

The First Page of each Month is headed by an Allegorical Design, and the remainder is devoted to Calendrical Information; we proceed to explain, where necessary, the columns in this page.

### SUN AND MOON RISING AND SETTING, &c.

In calculating the Times of Sun Rising or Setting, the effect of refraction has been taken into account, by assuming that the mean horizontal refraction is  $34'$ ; and for the Moon a mean horizontal parallax of  $57'$  has also been included, so that the times are for the centre of each body appearing in the horizon.

The difference between the time of the Moon Rising or Setting, and the time the Moon Souths, represents the half of the time the Moon is above the horizon.

The Times of the Phases of the Moon are computed for the meridian of Greenwich. The times for any other meridian may be easily deduced by adding or subtracting the difference of longitude from Greenwich, according as the same is E. or W. of Greenwich.

### EQUATION OF TIME.

The interval of time between the Sun being on the meridian of one day, and his being on the meridian of the next day, is not always the same, and, therefore, solar days are not equal in duration; about one half are a little more, and about one half are a little less than twenty-four hours. A clock regulated by the Sun would need frequent adjustment; to avoid this, an imaginary Sun is supposed to move, so that the interval of time between its consecutive passages over the meridian is always equal; such a time represents a mean solar day, and it is the average of all the apparent solar days in a year. The difference of time between the imaginary Sun and the true Sun passing the meridian, is called the "Equation of Time," the amount of which at noon every day is inserted. There are only four days in the year when the apparent and mean-time are the same, and the Equation of Time is nothing, viz., April 15th, June 15th, September 1st, and December 24th. Between April 15th, and June 15th, the imaginary Sun follows the true Sun, and, therefore, the clock-time is earlier than the Sun and the "Equation" is subtractive. Between June 15th and September 1st, the imaginary Sun precedes the true Sun, and the clock-time is later than the Sun, and the "Equation" is additive. Between September 1st, and December 24th, the clock-time is again earlier than the Sun, and the "Equation" is subtractive. After December 24th, and before April 15th, the clock-time is later than the Sun, and the "Equation" is additive.

The greatest difference between mean-time (common clock-time) and apparent time (time by the Sun) occurs on the 3rd of November, and it is 16m. 17sec. the Equation then being subtractive from apparent time; and the instant the Sun's centre is on the meridian, or he is Southing, the time by a clock regulated to mean-time should be 11h. 43m. 43sec. On the 11th day of February, the greatest additive Equation occurs, and when the Sun is Southing, a clock regulated to mean-time should show 14m. 32sec., after noon. All the calculations throughout this Almanack have been adapted to Greenwich mean-time.

Mean-time is easily reduced to apparent, by applying the Equation the reverse to that mentioned in the Almanack.

The other columns need no remark; as their respective headings fully explain themselves.

The whole of these calculations have been performed under the immediate superintendence of JAMES GLAISHER, Esq., F.R.A.S., and of the Royal Observatory, Greenwich.


The Second Page of each Month is devoted to Astronomical Appearances and Occurrences. It forms a Popular Treatise on the Astronomy of the Current Year, with much that is applicable at all times; and, therefore, it has a permanent interest. This department has also been written by Mr. GLAISHER, of the Royal Observatory.

The Third Page of each Month is headed by a graceful Illustration of its Sports, Pastimes, and Pursuits; accompanied by Notes upon its Feasts and Fasts, and brief Notices of the Festal Observances by which the several Holidays have been transmitted through ages unto our own time. Throughout the Illustrations, the Artist has associated the Ages of Man with the Natural Appearances of the Year in each Month; the epigraphs to each being quoted from a quaint old poem—"The Age and Life of Man: a Short Description of the Nature, Rise, and Fall, according to the Twelve Months of the Year."

The Fourth Page of each Month is devoted to its Natural History; which needs no explanation, further than that, in writing the article, the best authorities have been consulted. This department has been written by Mr. GLAISHER. The whole of the drawings in this and the Astronomical section, have been made by Mrs. GLAISHER. This division of our Almanack will apply as well to any other year as to this; and it, therefore, has a permanent attraction. The application of a more perfect knowledge of the works of Creation is endless; this alone raises the study of Natural History very high in the scale of human inquiry, and we hope that we may have performed a service to many readers by imparting it in a more accessible and persuasive form.

The remaining portion of the Almanack is devoted to Useful Tables, for reference, &c., which have been derived from the best sources.

The ILLUSTRATED ALMANACK, as now offered to the public, is unique. It is earnestly hoped, that as this Almanack may be viewed in a multiple point of view, it will be found valuable. We may mention a few instances: in the first place, as a book of reference, in many respects not only for the immediate year for which it is formed, but, also, of perpetual interest; in the second place, it may be viewed as a book of instruction; and, thirdly, it may be viewed as a book of pleasant reading. Extreme labour and care have been expended upon its execution; so as to combine the precision and accuracy of an Almanack with its picturesque beauty.

 The Index of the Contents will be found upon the last page.



# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## THE PRINCIPAL ARTICLES OF THE CALENDAR.

### FOR THE YEAR OF OUR LORD 1846.

Golden Number .. .. .	4	Dominical Letter .. .. .	D
Epoct .. .. .	3	Roman Indiction .. .. .	4
Solar Cycle .. .. .	7	Julian Period .. .. .	6559

NOTES.—As many persons are not aware of the significations of these terms, the following explanation has been appended:—

1. **GOLDEN NUMBER.**—This is in fact the *remainder* left after dividing 1844 and 1 added, by 19 years, that being the revolution or cycle in which the conjunctions, oppositions, and other aspects of the Moon happen on the same days of their respective months, as they were set down nineteen years before, and also within half an hour of the same time of day.

2. **THE SOLAR CYCLE** is the twenty-eight years that revolve before the same days of the week return to the same days of the month, the sun's place to the same signs, and degrees of the Ecliptic at the same dates and the leap years begin the same course over again with respect to the days of the week on which the days of the month fall.

3. **THE DOMINICAL LETTER**, which denotes Sunday or day of our Lord, (i.e. *Dominical*), was the ancient mode of notation, but is now only used to denote the Sabbaths. Thus the ordinary year being 365 days, or one more than 52 weeks, the Sunday letter falls back one letter each year; unless it is Leap Year, when a second move backwards takes place. As every fourth year is thus Bissextile, and as the number of letters employed is seven, the same order of Dominical Letters will return only in four times seven or twenty eight years, whereas, without that intervention, it would return in seven.

4. **THE ROMAN INDITION** is a cycle of fifteen years, indicating the terms of certain payments due by the Roman Landholders to their Government.

5. **THE JULIAN PERIOD** is a revolution of 7980 years, and is produced by the continued multiplication of the three cycles above, viz. 19, 28, and 15.

## FIXED AND MOVEABLE FESTIVALS, ANNIVERSARIES, &c.

Epiphany .. .. .	Jan. 6	Birth of Queen Victoria .. .. .	May 24
Martyrdom of King Charles I. ..	30	Restoration of King Chas. II. ..	29
Septuagesima Sunday .. .. .	Feb. 8	Pentecost—Whit Sunday .. ..	31
Quinquagesima—Shrove Sunday ..	22	Trinity Sunday .. .. .	June 7
Ash Wednesday .. .. .	25	Corpus Christi .. .. .	11
Quadragesima—1st Sunday ..	March 1	Accession of Queen Victoria ..	20
in Lent .. .. .		Proclamation .. .. .	21
St. David .. .. .	1	St. John Baptist—Midsum- mer Day .. .. .	24
St. Patrick .. .. .	17	Birth of Dowager Queen Adelaide .. .. .	Aug. 13
Annunciation—Lady Day .. ..	25	St. Michael—Michaelmas Day ..	Sept. 29
Palm Sunday .. .. .	10	Gunpowder Plot .. .. .	Nov. 5
Good Friday .. .. .	12	Birth of the Prince of Wales ..	9
Easter Sunday .. .. .	19	Advent Sunday .. .. .	29
Low Sunday .. .. .	23	St. Andrew .. .. .	30
St. George .. .. .	23	St. Thomas .. .. .	Dec. 21
Rogation Sunday .. .. .	27	Christmas Day .. .. .	25
Ascension Day—Holy Thurs- day .. .. .	May 21		

The year 5607 of the Jewish Era, commences on September 21st, 1846

Ramadan (Month of Abstinence observed by the Turks) commences on August 23rd, 1846.

The year 1263 of the Mohammedan Era, commences on December 20th, 1846.

## LAW TERMS, 1846.

As settled by Statutes 1, William IV., Cap. 70, S. 6 (passed, July 23rd, 1830); Cap. 3, S. 2 (passed, December 23rd, 1830.)

Hilary Term .. .. .	Begins January 11	Ends January 31
Easter Term .. .. .	" April 15	" May 8
Trinity Term .. .. .	" May 22	" June 12
Michaelmas .. .. .	" Nov. 2	" Nov. 25

## UNIVERSITY TERMS, 1846. OXFORD.

TERMS	BEGINS	ENDS
Lent .. .. .	January 14	April 4
Easter .. .. .	April 22	May 30
Trinity .. .. .	June 3	July 11
Michaelmas .. .. .	October 10	December 17

The Act, July 7

## CAMBRIDGE.

TERMS	BEGINS	DIVIDES	ENDS
Lent .. .. .	Jan. 13	Feb. 22, Noon	April 3
Easter .. .. .	April 22	May 31, Midnight	July 10
Trinity .. .. .	—	—	—
Michaelmas .. .. .	Oct. 10	Nov. 12, Midnight	Dec. 16

The Commencement, July 7

## ASTRONOMICAL SYMBOLS AND ABBREVIATIONS EXPLAINED.

☉ The Sun	☿ Mercury	♀ Venus	♁ or ☿ The Earth	♂ Mars	♄ Jove	♅ Uranus	♁ Pallas	♁ Ceres	♃ Jupiter	♄ Saturn	♁ The Georgian	♁ Conjunction
☿ Quadrature	☿ Opposition	☿ Ascending Node	☿ Descending Node	N North	E East	S South	W West	° Degrees	' Minutes of Arc	" Seconds of Arc	H Hours	M Minutes of Time
S Seconds of Time	♈ Aries	♉ Taurus	♊ Gemini	♋ Cancer	♌ Leo	♍ Virgo	♎ Libra	♏ Scorpio	♐ Sagittarius	♑ Capricornus	♒ Aquarius	♓ Pisces

## NEW CORN LAW DUTIES

### IF IMPORTED FROM ANY FOREIGN COUNTRY.

#### WHEAT.

Whenever the average price of Corn, made up and published in the manner required by law, the duty shall be for every Quarter.

Under 51s. .. .. .	20s	62s. and under 63s. .. ..	10s.
51s. and under 52s. .. ..	19	63s. and under 64s. .. ..	9
52s. .. .. .	18	64s. and under 65s. .. ..	8
53s. .. .. .	17	65s. and under 66s. .. ..	7
54s. .. .. .	16	66s. and under 67s. .. ..	6
55s. .. .. .	15	67s. and under 68s. .. ..	5
56s. .. .. .	14	68s. and under 69s. .. ..	4
57s. .. .. .	13	69s. and under 70s. .. ..	3
58s. .. .. .	12	70s. and under 71s. .. ..	2
59s. .. .. .	11	71s. and upwards .. .. .	1
60s. .. .. .	10		
61s. .. .. .	9		
62s. .. .. .	8		

#### BARLEY.

Under 26s. .. .. .	11s.	33s. and under 34s. .. ..	5s.
26s. and under 27s. .. ..	10	34s. and under 35s. .. ..	4
27s. .. .. .	9	35s. and under 36s. .. ..	3
28s. .. .. .	8	36s. and under 37s. .. ..	2
29s. .. .. .	7	37s. and upwards .. .. .	1
30s. .. .. .	6		

#### OATS.

Under 19s. .. .. .	8s.	24s. and under 25s. .. ..	4s.
19s. and under 20s. .. ..	7	25s. and under 26s. .. ..	3
20s. .. .. .	6	26s. and under 27s. .. ..	2
21s. .. .. .	5	27s. and upwards .. .. .	1

#### RYE, PEAS, AND BEANS.

Under 30s. .. .. .	11s. 6d.	37s. and under 38s. .. ..	5s. 6d.
30s. and under 31s. .. ..	10	38s. and under 39s. .. ..	4
31s. .. .. .	9	39s. and under 40s. .. ..	3
32s. .. .. .	8	40s. and under 41s. .. ..	2
33s. .. .. .	7	41s. and under 42s. .. ..	1
34s. .. .. .	6	42s. and upwards .. .. .	0

WHEAT MEAL AND FLOUR.—For every barrel, being 196 pounds, a duty equal in amount to the duty payable on 38½ gallons of Wheat.

OATMEAL.—For every quantity of 18½ pounds, a duty equal in amount to the duty payable on a quarter of Oats.

MAIZE OR INDIAN CORN, BUCK WHEAT, BEAR OR BIGG.—For every quarter, a duty equal in amount to the duty payable on a quarter of Barley.

If the produce and imported from any British Possession (except Canada) in North America, or elsewhere out of Europe.

#### WHEAT.

Under 55s. .. .. .	5s. 0d.	56s. and under 57s. .. ..	3s. 0d.
55s. and under 56s. .. ..	4	57s. and under 58s. .. ..	2
56s. and upwards .. .. .	3		

#### BARLEY.

Under 28s. .. .. .	2s. 6d.	29s. and under 30s. .. ..	1s. 6d.
28s. and under 29s. .. ..	2	30s. and under 31s. .. ..	1
29s. and upwards .. .. .	1		

#### OATS.

Under 22s. .. .. .	2s. 0d.	22s. and under 23s. .. ..	1s. 6d.
22s. and upwards .. .. .	1		

#### RYE, PEAS, AND BEANS.

Under 30s. .. .. .	3s. 0d.	32s. and under 33s. .. ..	1s. 6d.
30s. and under 31s. .. ..	2s. 6d.	33s. and under 34s. .. ..	1
31s. .. .. .	2	34s. and upwards .. .. .	0

WHEAT MEAL AND FLOUR.—For every barrel being 196 pounds, a duty equal in amount to the duty payable on 38½ gallons of Wheat.

OATMEAL.—For every quantity of 18½ pound, a duty equal in amount to the duty payable on a quarter of Oats.

MAIZE OR INDIAN CORN, BUCK WHEAT, BEAR OR BIGG.—For every quarter, a duty equal in amount to the duty payable on a quarter of Barley.

#### CANADA CORN.

By the act passed in the Session of 1843, Corn from Canada is admitted into England on payment of 1s. a quarter duty; a duty of 3s. a quarter being imposed on Corn admitted into Canada.—Total Fixed duty 4s. a quarter.

## STATEMENT

Of the Septennial Prices of each kind of Grain, as prepared for the Purposes of the Tith Commission in each Year, from 1836 to 1843.

Periods of Seven Years ending Christmas.	Average Prices per Imperial Bushel.					
	Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1836 .. .. .	6 8½	3 11½	2 9	4 3½	4 6½	4 9½
1837 .. .. .	6 8½	3 11½	2 8½	4 4½	4 10	4 8½
1838 .. .. .	6 6½	3 9½	2 8	4 2	4 6½	4 8
1839 .. .. .	6 9	3 11½	2 9½	4 3½	4 8	4 9
1840 .. .. .	6 11½	4 1	2 10½	4 5½	4 10	4 10½
1841 .. .. .	7 3½	4 2	2 11½	4 6½	4 11	4 10½
1842 .. .. .	7 7½	4 1½	2 10½			
1843 .. .. .	7 7½	4 0½	2 9½			

## QUARTER SESSIONS IN THE SEVERAL COUNTIES OF ENGLAND AND WALES.

By the Act 1 Will. IV., c. 70, it is enacted, that "in the year 1831, and afterwards, the Justices of the Peace in every county, riding, or division, for which Quarter Sessions of the Peace by law ought to be held, should hold their general Quarter Sessions of the Peace in the first whole week after the 11th of October, in the first week after the 28th December, in the first week after the 31st of March, and in the first week after the 24th of June."

It having been found that some inconvenience occasionally arose from the time fixed for holding of the Spring Quarter Sessions interfering with that appointed for holding the Spring Assizes, an Act was passed 4 and 5 Wm. IV., c. xlvii. allowing a discretionary power of the Justices of Peace as to the time of holding the Spring Quarter Sessions, and they are empowered at the preceding Epiphany Sessions to appoint two of their body to alter the day for the Quarter Sessions, if they shall see occasion, so as not to be earlier than the 7th of March, nor later than the 22nd of April; notice of the day so appointed is to be advertised in such papers as the Justices shall direct.





D	W	D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN.				MOON.				High Water at London Bridge.				Equation of Time.		Day of the Year
				Rises—S.	Declina- tion—S.	South	Age	Rises—S.	South.	Age	Morning.	Afternoon	M.	P.	M.	P.		
1	TH		<i>Circumcision</i> —The Festival of the Circum-	8 8 <sup>R</sup>	23 1		9 15 <sup>S</sup>	Afternoon	4	4 15	4 41	3 50					1	
2	F		cision was established about the close of the 5th century, and adopted	4 1 <sup>S</sup>	22 56		10 31 <sup>S</sup>	4 20	5	5 2	5 29	4 19					2	
3	S		in the Church of England, 1550	8 8 <sup>R</sup>	22 50		11 46 <sup>S</sup>	5 10	6	5 53	6 17	4 47					3	
4	S		Lavater died, 1801	4 3 <sup>S</sup>	22 44		Morning.	5 59 <sup>D</sup>	6	6 4	7 3	5 14					4	
5	M		2ND SUNDAY AFTER CHRISTMAS	8 8 <sup>R</sup>	22 38		1 0 <sup>S</sup>	6 47	8	7 28	7 56	5 41					5	
6	TU		Duke of York died, 1827	4 6 <sup>S</sup>	22 31		2 8 <sup>S</sup>	7 36	9	8 28	9 3	6 8					6	
7	W		THE EPIPHANY, instituted in 813, to com-	8 7 <sup>R</sup>	22 23		3 16 <sup>S</sup>	8 24	10	9 37	10 13	6 34					7	
8	TH		memorate the manifestation of the infant Saviour to the wise men of	4 8 <sup>S</sup>	22 16		4 17 <sup>S</sup>	9 13	11	10 52	11 31	7 0					8	
9	F		the East.—Old Christmas Day.—Dividend paid	8 6 <sup>R</sup>	22 7		5 15 <sup>S</sup>	10 2	12		0 4	7 25					9	
10	S		St. <i>Lucian</i>	4 10 <sup>S</sup>	21 58		6 5 <sup>S</sup>	10 51	13	0 32	0 58	7 42					10	
11	S		Cape of Good Hope taken, 1800	8 5 <sup>R</sup>	21 49		6 47 <sup>S</sup>	11 39	14	1 21	1 44	8 13					11	
12	M		Royal Exchange burnt, 1838	4 14 <sup>S</sup>	21 39		7 24 <sup>S</sup>	Morning.	2	2 3	2 23	8 36					12	
13	TU		1st SUN. AFT. EPIPH.—Hilary Term begins	8 3 <sup>R</sup>	21 30		Afternoon.	0 24	16	2 40	2 59	8 59					13	
14	W		Plough Monday always follows the Epiphany.	4 17 <sup>S</sup>	21 19		6 50 <sup>R</sup>	1 10	17	3 15	3 31	9 21					14	
15	TH		Its origin is involved in obscurity; but it is believed to be associated with	8 1 <sup>R</sup>	21 8		7 53 <sup>R</sup>	1 53	18	3 46	4 2	9 42					15	
16	F		the first use of the plough	4 20 <sup>S</sup>	20 57		8 57 <sup>R</sup>	2 36	19	4 18	4 34	10 3					16	
17	S		Venus sets at 8h. 11m. P.M.	7 59 <sup>R</sup>	20 46		10 3 <sup>R</sup>	3 19	20	4 50	5 5	10 33					17	
18	S		Queen Elizabeth crowned, 1559	4 23 <sup>S</sup>	20 34		11 9 <sup>R</sup>	4 2	21	5 23	5 38	10 43					18	
19	M		Battle of Corunna, 1809	7 57 <sup>R</sup>	20 21		Morning.	4 46	22	5 56	6 15	11 1					19	
20	TU		St. <i>Anthony</i>	4 26 <sup>S</sup>	20 8		0 16 <sup>R</sup>	5 32	23	6 34	6 58	11 19					20	
21	W		2ND SUNDAY AFTER EPIPHANY	7 55 <sup>R</sup>	19 55		1 28 <sup>R</sup>	6 22	24	7 19	7 46	11 36					21	
22	TH		Copernicus born, 1473	4 30 <sup>S</sup>	19 42		2 39 <sup>R</sup>	7 15	25	8 16	8 55	11 53					22	
23	F		<i>Fabian</i> —St. Fabian was the nineteenth bishop	7 53 <sup>R</sup>	19 28		3 47 <sup>R</sup>	8 11	26	9 33	10 12	12 9					23	
24	S		of Rome, he was chosen to that office in the year 241, and after being	4 33 <sup>S</sup>	19 13		4 53 <sup>R</sup>	9 11	27	10 53	11 34	12 24					24	
25	S		bishop thirteen years, suffered martyrdom in the Decian persecution	7 51 <sup>R</sup>	18 59		5 52 <sup>R</sup>	10 13	28		0 9	12 38					25	
26	M		Lord Byron born, 1788	4 36 <sup>S</sup>	18 44		6 39 <sup>R</sup>	11 14	29	0 40	1 9	12 51					26	
27	TU		Pitt died, 1806—Duke of Kent died, 1820	7 49 <sup>R</sup>	18 29		Afternoon.	Afternoon	0	1 37	2 1	13 4					27	
28	W		Fox born, 1794	4 40 <sup>S</sup>	18 13		6 42 <sup>S</sup>	1 12	1	2 28	2 51	13 15					28	
29	TH		3RD SUNDAY AFTER EPIPHANY	7 46 <sup>R</sup>	17 57		8 6 <sup>S</sup>	2 8	2	3 16	3 39	13 16					29	
30	F		Mercury rises 6h. 39m. A.M.	4 44 <sup>S</sup>	17 41		9 25 <sup>S</sup>	3 0	3	4 1	4 23	13 36					30	
31	S		Hutton died, 1823	7 43 <sup>R</sup>	17 24		10 42 <sup>S</sup>	3 52	4	4 44	5 7	13 46					31	
			London first lighted with gas, 1807															
			Geo. III. died, 1820—Swedenbourg b., 1689															
			Charles I. beheaded, 1648															
			Hilary Term ends—Pheasant Shooting ends															

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth, in each Lunation.		Days of the M.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.																																																																																						
			MERCURY.				VENUS.				MARS.				JUPITER.				SATURN.				URANUS.																																																																		
			Right Ascension.		Declination South.		Right Ascension.		Declination South.		Right Ascension.		Declination North.		Right Ascension.		Declination North.		Right Ascension.		Declination South.		Right Ascension.		Declination North.																																																																
First Quarter	4d. 2h. 25 m. P.M.	1	1 <sup>h</sup> . 0 <sup>m</sup> .	20° 16'	22h. 0m.	13° 5'	0h. 24m.	2° 33'	1h. 57m.	10° 40'	21h. 18m.	16° 51'	0h. 25m.	1° 58'	Full Moon	12 2 2	6	17 49	20 21 22	17	10 59	0 35 3	34	1 57	10 44 21	21	16 41	0 25 1	69	Third Quarter	20 3 52	11	17 53	21 0 22	31	8 51	0 47 5	14	1 58	10 51 21	23	16 31	0 26 2	1	New Moon	27 9 23 A.M.	16	18 9	21 47 22	45	6 45	0 58 6	33	1 59	10 59 21	25	16 20	0 26 2	1	Apogee	18 7	21	18 31	22 25 22	56	4 43	1 10 7	51	2 1	11 9 21	27	16 10	0 26 2	7	Perigee	27 3	26	18 57	22 24 23	5	2 48	1 22 9	8	2 3	11 20 21	30	15 59	0 27 2	11
Right Ascension is angular distance measured on the Equator from the first point of Aries, expressed in hours at the rate of fifteen degrees per hour.																																																																																									

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**ASTRONOMY** is the Science of the Heavenly Bodies, and describes their motions, periods of revolutions, eclipses, magnitudes, &c. And we give, in the present year, a Description of those bodies, with their Appearances in each month, with clear directions to find the stars at different times of the year.

If a spectator observe the heavens on a clear night, they will appear to undergo a continual change. If his back be to the north, some stars will be seen ascending from a quarter on his left hand; others descending to a quarter on his right hand; and, at some intermediate point, each star will reach its greatest height. If he now turn his back to the south, and observe the northern portion of the sky, the same phenomena will present themselves; some stars will appear as before, ascending from a quarter now on his right hand, reaching their highest points and descending to a point on his left hand. Other stars will be seen moving with different velocities, and some, to all appearance, are motionless; about one of these stationary stars, all those near it appear to describe circles; that stationary star is the Pole Star. To be able to find this star is of great importance, as, from it, many guiding lines can be drawn to other stars, and it indicates the North, always; it can be found as follows:—the Great Bear is the most conspicuous of the Northern constellations, the tail, and part of the body of which, consist of seven bright stars; four of these have been compared to a plough or wain, and it is generally known by the appellation of "Charles's Wain," and which will be immediately recognised by the following drawing.



The two stars marked  $\alpha$  and  $\beta$ , are called the pointers; a supposed line, drawn from  $\beta$  through  $\alpha$ , and continued onwards, passes near the Pole Star, at a distance from  $\alpha$  equal to six times the distance between the pointers; the Pole Star is brighter than any other star near it: and it is of the third magnitude. Having once found the Pole Star, it will be easily found again, since, to the naked eye, it appears always in the same place. A line from  $\alpha$  through the Pole Star directs the eye to the constellation Cepheus, and a line from  $\epsilon$  through the Pole Star points out the situation of the constellation Cassiopeia, each of these constellations being near to that part of the Milky Way where it is nearest to the Pole Star; we may remark here, then, an imaginary line, drawn from  $\delta$  through  $\alpha$  and continued more than twice the distance that  $\alpha$  is from the Pole Star, nearly passes the bright Star Capella, in the constellation Auriga, and following at the distance that  $\gamma$  is from  $\beta$  in the Great Bear, is  $\beta$  Aurigæ. The beginner should commence with the stars in those constellations, and he may then refer the situations of others to their positions with respect to these.

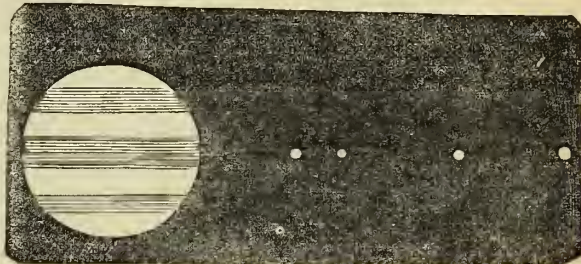
That part of the heavens which is the boundary of the spectator's view, is called the Horizon: stars are said to rise when they first appear above it, and to set when they sink beneath it. That part of the horizon under the Pole Star, is called

the North the opposite part is called the South and when the spectator is looking S. his left hand is towards the E., and his right hand towards the W. A line passing that part of the sky immediately over head (called the zenith), and joining the N. and S. points of the horizon, is called the Meridian, and it is in this imaginary line that stars always attain their highest points. All those stars whose angular distance from the Pole Star is less than the angular distance that the Pole Star is above the N. horizon, never rise nor set—all other stars do both rise and set. Almost all the stars in the heavens retain towards each other the same relative position—that is, they never approach nor recede from each other; for this reason they are called Fixed Stars; these stars are divided into constellations; the different stars of a constellation are marked by a Greek letter; they are also designated according to their apparent magnitudes; those of the first magnitude being marked  $\alpha$  those of the second,  $\beta$ ; those of the third,  $\gamma$  and so on of each constellation, and in all the drawings throughout this year, those of the 1st magnitude are drawn with eight spikes; those of the 2nd with seven; those of the 3rd with six; and those of the 4th with 5; as in the following engraving.



### ASTRONOMICAL APPEARANCES IN JANUARY.

There are, however, other bodies, such as the Moon and Planets, which continually change their places, and of these the Moon is the most interesting; but during the months of January, and part of February, Jupiter will be more favourably situated than at any other time in the year, except a part of December, and with the exception of the Moon, there is no more interesting spectacle in the heavens than Jupiter. With a telescope of moderate power his four satellites can be distinctly seen; these are designated the 1st., 2nd., 3rd., and 4th., according to their respective distances from Jupiter, when at their greatest E. or W. position from the planet. They all move round him, passing from W. behind the planet to the E., and from the E. before the planet, to the W., in the former case causing eclipses, and in the latter, transits. Their relative positions, therefore, with regard to Jupiter, and to each other, are continually changing. Sometimes they all appear on one side of the planet, as will be the case on January 1st., at 7 P.M., and which is represented in the following drawing.



And on the 4th day they will all be on the opposite side: but most frequently some are on one side and some on the other.

Jupiter will be found during this month by considering a line drawn from the Pole Star, passing near to  $\gamma$  Andromedæ and to eleven degrees south of  $\alpha$  Arietis; the Planet shines brighter than any other object near him. (See the month of March for finding  $\gamma$  Andromedæ and  $\alpha$  Arietis.)

### ASTRONOMICAL OCCURRENCES IN JANUARY.

PLANETS.				JUPITER'S SATELLITES.		OCCULTATIONS OF STARS BY THE MOON.		
Names	Time of passing the Meridian or of Setting, on the 15th. day	When near the Moon	Angular distance from the Moon, North or South	Eclipses of		Names of the Stars.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of Moon.
				1st. Sat.	2nd. Sat.			
				Emersion	Immersion and Emersion			
Mercury.	H. M. 10 26 A. M.	D. H. 25 7 P. M.	DEG. 4 South	D. H. M. 6 0 56 A. M.	D. H. M. 6 6 17 P. M.	2 Tauri	D. H. M. 8 5 0 P. M.	Dark Bright
Venus.	3 3 P. M.			7 7 25 P. M.	8 43 20 P. M.		8 6 4 "	
Mars.	5 17 P. M.			14 9 21 P. M.	13 8 53 P. M.	62 Piscium	31 7 22 P. M.	Dark Bright
Jupiter.	6 20 P. M.	5 11 P. M.	2½ South	21 11 7 P. M.	20 11 29 P. M.		31 8 25 "	
Saturn.	1 46 P. M.			23 5 46 P. M.	31 5 49 P. M.	5 Piscium	31 7 54 P. M.	Dark Bright
Uranus.	4 47 P. M.			30 7 42 P. M.	3 0 57 A. M.		31 8 39 "	
					Immersion 31 7 10 P. M. Emersion			

January 1st. Jupiter's four Satellites are W., and they are E. of the planet on the 4th., 11th., and the 25th., at about 7 o'clock in the evening.

January 1st., at 10h. 44m. P.M. the Earth is the nearest to the Sun during the year, being 93 millions 490 thousand and 620 miles from him.—See July.

January 26th., Venus at her greatest brilliancy in the morning.—See the month of May.





## JANUARY.

The first five years then of man's life,  
Compare to Januar;  
In all that time but sturt and strife,  
He can but greet and war;  
So in the fields of flowers all bare,  
By reason of the frost:  
Keeping the ground both soft and sound,  
Yet none of them is lost.

OLD POEM; 1653.

BIRTH OF THE YEAR.—CHILD FOUND IN THE SNOW, RESIDE ITS DEAD MOTHER.—EPISODE IN THE GREAT CONTENT: THE SNOW STATUE.

THERE are few persons of a reflective turn of mind, who do not feel a sort of mirth-melancholy at the close of one year, and the commencement of another. This feeling, probably, led Coleridge to observe, "If I were a moralist, I might disapprove the ringing in the new, and ringing out the old year:—

Why dance ye, mortals, o'er the grave of time!"

A living divine remarks, "It is a merciful provision that the stream of time does not run in one continuous flow, but that it is broken up and separated into larger portions, which are for 'signs and for seasons, and for days and years.' These changes and vicissitudes present us, successively, with renewed occasions and encouragements to amend our lives, and to set out, as it were, on a new course."

The Christian Year commences with the first Sunday in *Advent*, a season to prepare for the celebration of our Lord's first, and to ponder on his second, coming. The *Epiphany* (Twelfth Day), is kept to commemorate the manifestations of our Lord both as God and Man.

To the Epiphany, tradition assigned not only the worship of the Magi, but the baptism of Christ; the miracle of turning water into wine, and that of feeding the 5000, both considered to be typical of spiritual blessing; and which the eastern Christians, until shortly before the age of Chrysostom, when they adopted the custom of the Latin church in this respect, celebrated also as the Anniversary of the Birth of Christ.—(*Neale's Feasts and Fasts*.)

JANUARY is named from Janus, to whom it was dedicated, because, from its situation, it might be considered to be retrospective to the past, and prospective to the opening year. The Anglo-Saxons called January, *Wolf-monath*. Its holidays are very ancient; New Year's Gifts and Twelfth Day customs being as old as Rome itself; of the latter, Herrick sings:—

Give them to the king  
And queen wassailing;  
And though with the ale ye be wret here;  
Yet part ye from hence,  
As free from offence,  
As when ye innocent met here.

On the first Monday (*Plough Monday*), after, the festivities terminated; for then husbandmen resumed the plough.

The Sundays between the last Epiphany Sunday and Lent, should call us from the rejoicings of Christmas, and prepare us for profiting by the approaching season.

Late Winter begins with the year:—

Winter's white shroud doth cover all the ground,  
And Cæcia blows his bitter blast of woe;  
The ponds and pools, and streams in ice are bound,  
And famished birds are shivering in the snow.

As the day wears,

Through the hushed air, the whitening shower descends,  
At first thin—waving, till at last the flakes  
Full broad and wide, and fast, dimming the day  
With a continual snow.

Shakspeare says, applicable to this month:—

Never resting Time leads Summer on  
To hideous Winter, and confounds him there,  
Sap-checked with frost, and lusty leaves quite gone,  
Beauty o'eraw'd and barren.

Yet, there is "good in every thing;" and the hardy band of boyhood begin the contest of life in the shower of balls at the snow statue; as Napoleon, when at school, at Brienne, constructed fortresses out of the same material. One of the weather-saws of the month tells us:—

If Janiver Calends be summerly gay,  
It will be wintery weather till the Calends of May.

Let us sum up with the satirist:—

Froze January, leader of the year,  
Minced pies in vain, and calf's head in the rear—CHURCHILL.

The last allusion is to an annual insult offered on the 30th of January, to the memory of the unfortunate Charles I.; but which has long since yielded to the milder humanities of the times.

Foremost in the list of Festivals stands the Lord's day, or Sunday; "the day of the resurrection, the queen, the chief of all days, in which our life arose, and the victory over death was gained by Christ;" the day also in which, as Justin, the Martyr, urges, God, out of darkness and the primal matter, formed a world. Next in rank to Sunday, at least, if the frequency of its observance be considered, stood the Saturday, or, as it is universally called by the early writers, the Sabbath; a day observed with the same religious services, in all respects, as the Lord's day, though a difference grew up between the eastern and western churches, upon the question whether it should be kept as a festival or a fast. To these weekly holidays were added others of only annual recurrence, commemorative either of the principal events in the history of our Saviour, or of the sufferings of his more eminent followers. These Feasts were preceded by *Vigils* throughout the night, kept in the churches, or, in the earlier times, around the tomb of the Saint.

Jeremy Taylor has left us these Rules for Duties on Christian Festivals: "After the solemnities are past, and in the intervals between the morning and evening devotion, (as you shall find opportunity), visit sick persons, reconcile differences, do offices of neighbourhood, inquire into the needs of the poor, especially house-keepers; relieve them as they shall need, and as you are able: for then we truly rejoice in God, when we make our neighbours, the poor members of Christ, rejoice together with us."

[COMPILED BY JOHN TIMBS.]



## JANUARY.

NATURE is the general name for all things which are not the result of human labour or contrivance; the works of Nature, therefore, abound everywhere, and the science of Natural History may be considered to be, the knowledge of Nature in all her departments.

It is impossible to study any portion of this vast field, without finding that it is dependant on other portions. The brief life of the insect, for instance, depends on the time of existence of the plant by which it is nourished, and this plant in its successive development, depends on its locality, the season of the year, on the state of the atmosphere, &c., yet we cannot call the season of the year or any of the other circumstances the cause of its existence, though no doubt can exist of such a connection. It is, therefore, highly desirable at all times in noting down any periodical phenomena, to also note all such that may happen simultaneously. In the course of this year we shall mention some that may be expected to happen in each month, in an easy manner, without the technicalities of science, in the hope that many of our readers may be thereby interested, and that others may be assisted in their pursuit of Natural History.



THE GOLDEN CRESTED WREN.

The length of this handsome little bird in its feathers is about three inches and a half; weighs about seventy grains; bill slender, straight, having an inclination upwards; eyes remarkably lively; the feathers on the crown are long, forming a crest of a bright gold colour, which appears brighter by being contrasted with a band of black, passing from the eyes to the extremity of the crest; this band it can erect at pleasure, and with it at times nearly obscures the crest; legs slender; in the female, the crest is of a pale yellow, and the colours in general incline to brown (*Atlas des Oiseaux d'Europe*.)

This is a very beautiful bird, and it is the smallest of all European birds; if the above be the average weight, it would take one hundred to weigh one pound avoirdupois. When stripped of its feathers, the length of the body does not exceed an inch, yet this bird braves our severest winters, during which its sprightly note may often be heard, even whilst snow is falling. From the circumstance of these birds generally resorting to the tops of the largest trees, winter is the best time for observing them, as at other times they are concealed by the leaves. In severe seasons, it approaches the habitations of man like the redbreast, but it does not, however, come so close to the vicinity of houses, nor does it remain there so long as the redbreast. Indeed, from its light weight, enabling it to seek its food at the extreme ends of slender twigs, where the redbreast cannot be supported, its resources are greater than those of that bird. Their nest is composed of green moss, interwoven with wool, and lined so thickly with small feathers as to conceal the eggs, which are from seven to eleven in number, of a pinkish white, rather darker at the thick end, and scarcely larger than peas. They are so light that it takes about eight hundred of them to weigh one pound.

During the month of January, the redbreast sings; larks collect in flocks; the nutcracker is heard; the gray, white, and yellow wagtails appear; the missel thrush; the hedgessparrow; the greater titmouse; the thrush; the common wren; the skylark; the woodlark and the chaffinch sing. Rooks resort to their nest trees; jackdaws begin to frequent churches; tribes of small birds surround farmhouses for food, and to obtain shelter from the cold; and towards the end of January or the beginning of February, is heard the chirping of the blue titmouse; this bird is popularly known as the tom tit, and as such will be recognised by the following engraving.

This lively little bird is in length rather more than four inches; weighs about five drachms and a half; bill strong, sharp pointed, very thick at the base—the hinder claw very long. In the female the colours are somewhat duller than in the male.—(*Atlas des Oiseaux d'Europe*.)

The plumage of this common little bird is pleasing from its delicate colours. A large portion on each side of the neck, a line over the eye leading to the back of the head, and the forehead is white. A line of blackish-blue commences on each side of the base of the bill, passes the eyes, immediately under the line before mentioned to the back of the head, and surrounds the portion of white on each side of the neck—and continues up to the chin. On the lower part of the back of the neck is another portion of white. The head, the wings, and the tail are blue; the under parts yellow; and the legs are of a bluish grey.



THE BLUE TITMOUSE.

This bird feeds principally on insects, it is seen frequently in gardens and orchards, hanging from a branch, and minutely examining every crevice for the eggs and larvae of different insects. In winter, it will often pull off the buds of trees, and its operations have been much dreaded by gardeners. But the eminent naturalist, Mr. Selby, observes, that, "the trifling injury sometimes committed by the abrasion of a few blossom buds, is more than compensated by the destruction of innumerable larvae, and eggs of the insect tribe, which are usually deposited in or about those essential parts of fructification, and which, if allowed to proceed through the necessary changes, would effectually check all hope of produce." And again, it is very likely that they never attack a single bud except they perceive evident traces of insects. It is not always satisfied with insects for its food; at times it will attack small birds, particularly such as are ill, which it dispatches with its bill, by cleaving their skulls and picking out their brains; they place the foot on their food whilst picking it to pieces; and they conceal what they cannot eat for a future occasion, by carefully covering it with leaves, or any other substance that may be near.

The nest is generally in the holes of trees, it is composed of moss, well lined with feathers, hair, and wool; and the female lays from six to eight eggs, of a clear transparent white, speckled with rust colour at the larger end.

This bird is about the first among small birds, in discovering an enemy, a weasel or an owl; and it is distinguished above all others by its rancour against the latter, which it unremittently persecutes whenever it ventures forth in daylight.

Insects are generally torpid, yet occasionally, on fine days, some will swarm under hedges in sunny situations; gnats may be seen playing about in the Sun's rays; the black slug, the gray slug, and the earth worm come forth chiefly at night in open weather.

Towards the end of the month the Snowdrop flowers, and if the mouth be mild the mezerion opens its delicate blossoms.



THE SNOWDROP.

This is the first flower that awakes from the repose of winter, and cheers us with the re-animation of nature; and hence it has been made the emblem of consolation—as the dove was sent forth from the ark to ascertain whether the waters were abated, so does the Snowdrop seem selected by Flora, to find whether the frost be mitigated, and as a herald to announce the approach of Spring.





M	D	W	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN.		MOON.		Age	High Water at London Bridge.		Equation of Time.	Day of the Year
				Rises—R. Sets—S.	Declination South	Rises—R. Sets—S.	South.		Morning.	Afternoon		
1	S		4TH SUN. AFT. EPIPH.—Salmon Fishing begins	7 41 <sup>R</sup>	17 7	11 55 <sup>S</sup>		5	5 27	5 49	13 54	32
2	M		Candlemas Day	4 49 <sup>S</sup>	16 50		5 31	6	6 10	6 33	14 1	33
3	Tu		St. Blaise—The patron saint of the wool-	7 38 <sup>R</sup>	16 32	1 4 <sup>S</sup>	6 21	D	6 55	7 18	14 8	34
4	W		combing craft; martyred under Dioclesian, A.D. 289	4 52 <sup>S</sup>	16 15	2 10 <sup>S</sup>	7 10	8	7 43	8 11	14 14	35
5	Th		Sir Robert Peel born, 1788	7 34 <sup>R</sup>	15 56	3 8 <sup>S</sup>	7 59	9	8 47	9 27	14 19	36
6	F		Charles II. d., 1685—Dr. Priestly, d., 1804	4 56 <sup>S</sup>	15 38	4 1 <sup>S</sup>	8 48	10	10 8	10 49	14 23	37
7	S		Mary Queen of Scots beheaded, 1587	7 30 <sup>R</sup>	15 20	4 47 <sup>S</sup>	9 36	11	11 29		14 27	38
8	S		SEPTUAGESIMA SUNDAY	4 59 <sup>S</sup>	15 1	5 25 <sup>S</sup>	10 22	12	0 6	0 38	14 29	39
9	M		Sir R. Peel's New Corn Bill introduced, 1842	7 27 <sup>R</sup>	14 42	5 58 <sup>S</sup>	11 7	13	1 3	1 25	14 31	40
10	Tu		Queen Victoria married, 1840	5 2 <sup>S</sup>	14 22	6 26 <sup>S</sup>	11 52	14	1 45	2 5	14 32	41
11	W		Venus sets at 7h. 56m. P.M.	7 24 <sup>R</sup>	14 3	6 3 <sup>S</sup>			2 23	2 38	14 32	42
12	Th		Lady Jane Grey executed, 1544	5 6 <sup>S</sup>	13 43	Afternoon.	0 35	16	2 54	3 9	14 32	43
13	F		Talleyrand born, 1754	7 20 <sup>R</sup>	13 23	7 54 <sup>R</sup>	1 18	17	3 26	3 40	14 30	44
14	S		St. Valentine.—At Rome, patron saints chosen	5 10 <sup>S</sup>	13 2	9 0 <sup>R</sup>	2 1	18	3 55	4 10	14 28	45
15	S		SEXAGESIMA SUNDAY	7 16 <sup>R</sup>	12 42	10 6 <sup>R</sup>	2 45	19	4 26	4 43	14 25	46
16	M		Capt. Cook killed, at Owhyhee, 1797, aged 51	5 14 <sup>S</sup>	12 21	11 15 <sup>R</sup>	3 30	20	4 57	5 13	14 22	47
17	Tu		Michael Angelo died, 1564	7 12 <sup>R</sup>	12 0				4 18	5 30	14 18	48
18	W		Martin Luther died, 1546	5 18 <sup>S</sup>	11 39	Morning.	0 23	15	5 8	6 27	14 13	49
19	Th		Copernicus born, 1473—Galileo born, 1564	7 9 <sup>R</sup>	11 18	1 33 <sup>R</sup>	6 1	16	6 49	7 15	14 7	50
20	F		Jupiter sets at 11h. 25m. P.M.	5 21 <sup>S</sup>	10 57	2 37 <sup>R</sup>	6 58	24	7 41	8 15	14 1	51
21	S		Trinidad taken, 1797	7 5 <sup>R</sup>	10 35	3 36 <sup>R</sup>	7 56	25	8 59	9 42	13 54	52
22	S		QUINQUAGESIMA (SHROVE) SUNDAY	5 25 <sup>S</sup>	10 13	4 26 <sup>R</sup>	8 56	26	10 27	11 11	13 46	53
23	M		Sir Joshua Reynolds died, 1792	7 1 <sup>R</sup>	9 51	5 10 <sup>R</sup>	9 55	27	11 52		13 38	54
24	Tu		SHROVE TUESDAY—St. Matthias	5 29 <sup>S</sup>	9 29	5 46 <sup>R</sup>	10 53	28	0 25	0 56	13 30	55
25	W		ASH WEDNESDAY—The first day in Lent.	6 56 <sup>R</sup>	9 7	Afternoon.	11 50	29	1 22	1 47	13 20	56
26	Th		Formerly the consecrated palm branches used on Palm Sunday in the preceding year were preserved and burnt on this day, and their ashes blessed and sprinkled by the Priest over the heads of the people—Earl of Essex beheaded, 1601	5 32 <sup>S</sup>	8 45	6 5 <sup>S</sup>	Afternoon	1	2 11	2 34	13 10	57
27	F			6 52 <sup>R</sup>	8 22	8 15 <sup>S</sup>	1 38	2	2 57	3 19	13 0	58
28	S		Mars sets at 11h. 45m. P.M.	5 36 <sup>S</sup>	7 59	9 32 <sup>S</sup>	2 30	3	3 40	4 1	12 49	59

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee) from the Earth, in each Lunation.	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
First Quarter 3d. 5h. 11m. A.M.	1	19h. 32m.	22° 27'	23h. 12m	0° 44'	1h. 36m.	10° 39'	2h. 5m	11° 35'	21h. 32m.	16° 48'	0h. 28m.	2° 17'
Full Moon 11 9 12 "	6	20 4	21 41	23 15	0 41N	1 49	11 52	2 7	11 48	21 35	15 34	0 29	2 21
Third Quarter 19 4 44 "	11	20 36	20 23	23 14	1 44N	2 1	13 3	2 10	12 3	21 37	15 23	0 29	2 27
New Moon 25 7 32 P.M.	16	21 8	18 33	23 9	2 20N	2 13	14 12	2 13	12 19	21 39	15 11	0 30	2 32
Apogee 9 9 "	21	21 42	16 4	23 1	2 24N	2 25	15 19	2 16	12 36	21 42	15 0	0 31	2 38
Perigee 24 2 "	26	22 16	13 2	22 50	1 55N	2 39	16 22	2 19	12 54	21 44	14 49	0 32	2 44

NOTE.—Declination is angular distance from the Equator, and it is North or South according as the object is North or South of the Equator; when, therefore, an object is in the Equator it has no Declination.



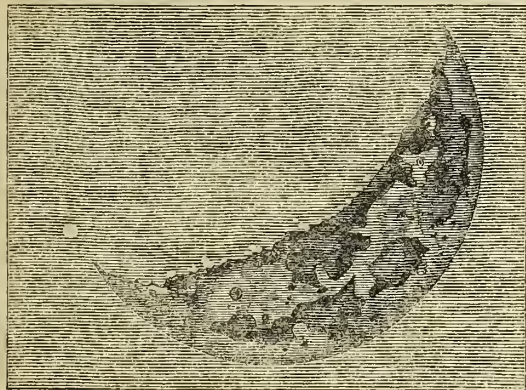
## FEBRUARY.

THE drawing of Jupiter in last month, not only represents the relative positions of the Satellites at that time, but it is a correct drawing of the Planet; and it will be observed that he is surrounded with faint substances, which appear like streaky lines; these are called his belts, and they are at times more distinct than at other times. When the Satellites interpose between the Sun and Jupiter, they produce solar eclipses precisely similar to those which the Moon causes at the Earth, when she is between the Sun and the Earth, and of these more than 350 occur in one of our years.

When the Satellite passes behind the Planet, with respect to a spectator on the Earth, it is hidden from us. And when it passes from behind the Planet it re-appears; in both cases it is an eclipse, and designated an immersion in the former, and an emersion in the latter case. These phenomena happen at some distance from the body of Jupiter, except when he passes the Meridian at midnight, and during the month preceding and following that time; at these times the eclipse takes place near to the body of the Planet; and when he passes the Meridian before midnight, it takes place on the West side of the Planet; and on the East, when he passes after midnight. During the whole of the year 1846, they will all appear West of the Planet, except in the month of December, when they will be to the East of him. By means of the rapid revolution of the Satellites, these eclipses occur with great frequency. The first being eclipsed every 42h.; the 2nd., every 85h.; the 3rd., every 7 days, and the 4th., every 17 days. The times at which these phenomena happen, and visible to us, are noted in every month.

At times, though it is but seldom, one Satellite is in contact, or passes over another; such an occurrence happened in 1843, on Sept. 10th, of the 1st and 3rd Satellites.—(See *Greenwich Observations*, 1843; pages 108 and 109.)

The diameter of the Planet is about 90,000 miles, and the most recent determination of the time in which the Planet turns completely round on his axis, or the length of one of his days is 9h., 55m., 21s.—(See *Professor Airy's paper on the time of rotation of Jupiter in the IX. Vol. of the Memoirs of the Astronomical Society*).



On February 1, during the evening, the Moon, Jupiter and Mars, are near to each other. At 10h. 3m., the Moon will occult Mars, or Mars will become hidden by the Moon, and remain thus hidden for twenty minutes, till 10h. 23m., at which time he will re-appear at the lowest part of the Moon. The phenomena is represented in the accompanying drawing. The Planet will disappear on the left hand side of the Moon, and a little above its enlightened part.

At the time of the phenomena the Moon will be due West. The planet Mars during this month will be near to Jupiter, appearing W. of him till the 15th and

16th days, at which time he will be immediately above Jupiter; and he continues above him by quantities becoming greater and greater, day by day. After the 16th day he will be E of Jupiter, and will be more and more separated from him day by day.

The mean distance of Mars from the Sun, is about once and a half that of the Earth; or, when he is nearest to the Earth, he is about half as far from us as we are from the Sun; his diameter is about 4,100 miles.

Mars' apparent magnitude is very variable, arising from his varying distance from the Earth, he being five times farther from us at the time he is in conjunction with the Sun, than when he is in opposition to the Sun; he also varies greatly in his apparent brightness, arising from sometimes presenting towards us the whole of his enlightened hemisphere, and sometimes only part. In consequence of these changes he varies, in particular instances, from being small and scarcely visible, to being bright and large. He may be easily distinguished from any other Planet or Star by his red appearance; this appearance is imputed to the density of his atmosphere. His Poles,\* like those of the Earth, appear to be covered with perpetual snow. The brightness of the Polar regions has led to this supposition, and it appears to be in some measure confirmed from the circumstance of this brightness almost disappearing after being long exposed to the Sun; and being most evident when just emerging from the long night of his Polar winter. The analogy between the Earth and Mars, is greater than between the Earth and any other Planet. The length of his day is nearly the same. His seasons are not very different. His year, though nearly equal to twice the length of ours, yet, as compared with the other Planets, Jupiter, Saturn, and Uranus, agrees most nearly with that of the Earth.

A few days after he has been in conjunction with the Sun, (that is, when Mars has been in, above, or below that straight line joining the Earth and the Sun, produced beyond the Sun to the distance of Mars), he rises some minutes before the Sun, and his motion is nearly towards the East. But the Earth's motion is nearly twice as great as that of Mars, and they are both moving in the same direction; therefore, Mars appears to be moving towards the West—if his motion be compared with the fixed stars, it will be found to be towards the East. This continues for nearly a year, or till his angular distance from the Sun is 137°; he then appears to be stationary for a few days. After this his motion is towards the West, and continues so till he is 180° distant from the Sun, or he is in, above, or below the straight line drawn from the Sun through the Earth and continued to Mars; or he is in opposition, and he passes the Meridian at midnight. His motion towards the West is now rapid—after some time it is slow, and when his angular distance is again 137° from the Sun, he is stationary as before.

During the whole of 1846, he will be dull and small. The time of rotation on his axis is 24h. 39m. 21s., and, therefore, the length of his day is nearly the same as one of ours. The Drawing of the Moon is a correct representation of her when she is from three to four days old, and to which Drawing, when speaking of her in a future month, we shall allude.

However, the Sun, as viewed from Mars, appears less by one-third than as viewed from the Earth: and consequently the degree of light and heat received at Mars, is less than that received by us, in the proportion of 4 to 9; or the Planet receives less than half that which we receive. No Satellite has ever been seen in attendance on him.

On February 1st, Mars will be found in a line joining  $\alpha$  Arietes and  $\alpha$  Ceti, and at about one-third of the distance between those stars from the latter star; during the month he will move towards the Pleiades, and at the end of the month he will assist in forming two equal triangles, the one consisting of Mars,  $\alpha$  Ceti, and the Pleiades; the other Mars,  $\alpha$  Arietis, and  $\alpha$  Ceti. Jupiter, on the first of the month, will be found by considering a line drawn from the Pole Star through  $\gamma$  Andromedæ, and  $\alpha$  Arietis, to 11° S. of the latter star; and at the end of the month he will be nearly midway between  $\alpha$  Arietis, and  $\alpha$  Ceti.

\* The Poles of a Planet are those parts of its surface where the terminations of that imaginary line upon which the Planet appears to revolve occur.

## ASTRONOMICAL OCCURRENCES IN FEBRUARY.

PLANETS.				JUPITER'S SATELLITES.		OCULTATION OF STARS BY THE MOON.		
Names	Time of passing the Meridian or Sunning, on the 14th. day	When near the Moon	Angular Distance from the Moon South or North	Eclipses of		Names of the Stars	Times of disappearance and re-appearance	At the dark or bright limb of the Moon.
				1st. Sat.	2nd. Sat.			
				Emersion	Immersion and Emersion			
Mercury . . .	H. M. 11 19 A.M.	D. H.	DEG.	D. H. M. 6 9 38 P.M.	D. H. M. 7 5 58 } 7 8 25 } P.M.	$\epsilon$ Tauri . . .	D. H. M. 5 1 7 A.M. 1 53 "	Dark Bright
Venus . . .	1 34 P.M.	26 5 A.M.	5 North	15 6 3 P.M.				
Mars . . .	4 32 P.M.	1 9 P.M.	$\frac{2}{4}$ South	22 7 59 P.M.		$\beta$ Scorpii . . .	19 5 14 A.M. 6 27 "	Dark Bright
Jupiter . . .	4 35 P.M.	2 10 A.M.	2 South		3rd. Sat. D. H. M. 7 9 10 P.M. Immersion.			
Saturn . . .	0 2 P.M.	25 1 A.M.	6 South					
Uranus . . .	2 53 P.M.							

February 6th, 8h. 29m. A.M., Mercury at the greatest distance from the Sun.

February 7th, 4h. 4m. P.M., Venus stationary with respect to the Fixed Stars.—(See May.)

February 8th, Jupiter's Satellites all East, and on the 20th, they are all West of the Planet at about 7h. in the evening.

February 10th, 8h. 0m., P.M., Venus the nearest to the Sun.

February 16th, 5h. 10m. A.M., Mars and Jupiter near together, Mars being 2° N. of Jupiter.





## FEBRUARY.

So to ten years I shall speak then,  
Of Februar but lack,  
The child is meek and weak of spirit,  
Nothing can undertake,  
So all the dowers, for lack of showers,  
No springing can make;  
Yet birds do sing and praise their king,  
And each one choose their mate.  
OLD POEM; 1653.

THE CHILD ABROAD.—THE FIRST STRATEGY: BIRD-CATCHING.

THE Pagan Romans celebrated their *Juno Februata* on the day which is the vigil of Candlemas, February 1; and hence the name of the month February is unquestionably derived.

*Candlemas* is evidently traceable to the ancient custom of lighting up churches and chapels with candles and lamps, and carrying them in procession. The practice of lighting the churches has been discontinued in this country since the second year of Edward the Sixth; in the Romish church, the original name, and all its attendant ceremonies, are still retained. Herbert, in his *Country Parson*, refers to a relic of this practice, in the custom of saying, "when light is brought in, *God sends us the light of Heaven*—and the parson likes this very well. Light is a great blessing, and as great as food, for which we give thanks: and those that think this superstitious, neither know superstition nor themselves."

*St. Valentine's Day* is of Pagan origin; but the poets refer it to the rural tradition of birds choosing their mates on this day:—

Hail, Bishop Valentine, whose day this is!  
All the air is thy diocese,  
And all the chirping choristers,  
And other birds are thy parishioners.  
Thou marry'st every year,  
The lyric lark, and the grave whispering dove;  
The sparrow that neglects his life for love;  
The household bird with the red stonacher;  
Thou make'st the blackbird speed as soon,  
As doth the goldfinch, or the halcyon!

DR. DONNE.

Mrs. Bray relates a vestige of the custom of making presents remaining to the present day in Devonshire; where, on St. Valentine's Day, a young woman occasionally thus addresses the first young man she meets:—

Good morrow, Valentine, I go to-day,  
To wear for you what you must pay,  
A pair of gloves next Easter-day.

"It is not, however, very common to send the gloves, unless there is a little sweethearting in the case." The yellow *Crocus* blowing plentifully about this time, has been called *Hymen's Torch*, and *Flower of St. Valentine*; or, as the old verse says,

The *Crocus* blows before the shrine,  
At vernal dawn of St. Valentine.

*Septuagesima*, &c.—The first Sunday in Lent being forty days before Easter, is, on that account, called *Quadragesima*, from the Latin for forty; and fifty, sixty, and seventy being the next round numbers above forty, the first, second, and third Sundays before *Quadragesima*, are called *Quinquagesima*, *Sexagesima*, and *Septuagesima*, from the Latin for their round numbers.

*Collop Monday*, or Shrove Monday, the day before Shrove Tuesday, was formerly the last day of flesh-eating before Lent, when our ancestors cut their flesh-meat into collops, or steaks, for salting or hanging up till Lent was over; hence, in many places, it is still customary to have eggs and collops or slices of bacon, at dinner on this day, as well as pancakes on the following day. These celebrations were termed "Shrotings," which Sir Thomas Overbury, thought a

"Franklin," (see Chaucer), might observe without regarding them as "relics of Popery."

*Shrove Tuesday*, (the day before the first day of Lent), is so called, because in Romish times it was usual to confess on that day, which act is expressed by the Saxon terms *Shrive* or *Shrove*. It was formerly a season of extraordinary sport and feasting, an apprentices' holiday, &c. Cock-fighting and Throwing at Cocks were almost universally *Shrove Tuesday Sports*: the former cruelty was popular in Greece; English cocks are mentioned by Cæsar; but, the first notice of English cock-fighting is about 1170. The satiric pencil of Hogarth, and the moral muse of Cowper, have almost abolished this modern barbarism. The wicked practice of throwing at a Cock tied to a stake, on Shrove-tide, is said to have an allusion to the indignities offered to the Saviour of the World before his Crucifixion; by others, this annual torture of the Cock is associated with St. Peter's crime, in denying his Lord and Master. The persecution was extended to the Hen: hence, the Ploughman's holiday on Shrove Tuesday, when, "after confession, he was suffered to *thresh the fat Hen*." *Eating Pancakes* and *Fritters* on this day is a harmless observance: according to Fosbroke, Pancakes are taken from the heathen *Fornacalia*, celebrated on February 18th, in memory of making bread before ovens were invented by the goddess Fornax. Brand considers that we have borrowed the custom from the Greek Church. The frying of the Pancakes was formerly commenced, universally, at the ringing of "the Pancake Bell;" and it was a holiday at the Colleges and Public Schools, where the Pancake was thrown over the bar or curtain dividing the upper and under forms. In Scotland, *Crocodile* (oatmeal and water) is eaten on this day, as Pancakes are in England. *Football* was another common Shrove Tuesday sport: it is still played in Derby, Nottingham, Kingston-upon-Thames, and a few other towns.

*Ash Wednesday*, the first day of Lent, originated in the blessing of Ashes on that day, "to put in remembrance every Christian man, the beginning of Lent and Penance, that he is but ashes and earth, and thereunto shall return;" and the ceremony was reserved at the Reformation.

The Carnival,

Some weeks before Shrove Tuesday comes about, is still celebrated, on the Continent, in

All countries of the Catholic persuasion.

Rome is possessed by the gay madness for eight days; its characteristics being the masquerade in the streets, showers of *confetti* or mock sweetmeats, firing of mortars, racing of horses without riders, and the lighting of *mocchetto*, or wax tapers. At Naples, the Carnival is much like that at Rome; at Genoa it is indifferent; at Venice, the festival lasts from Twelfth Day till Shrove Tuesday. At Paris, it is principally kept on the three days preceding Ash Wednesday; and upon the last day is the procession of the *Bœuf-gras*, or Government prize-ox, through the streets; then all is quiet until the Thursday of Mid-lent, or *Libertine* for which day only, the revelry breaks out wilder than ever.



## FEBRUARY.

DURING this month the brown wood owl hoots; the common hen sits; the turkey cock struts and gobbles; the yellow hammer sings; the raven builds; rooks pair, as also do partridges; missel thrushes pair; the stone curlew clamours; the ring-dove coos; redwings and fieldfares depart; and the green woodpecker makes a loud cry.



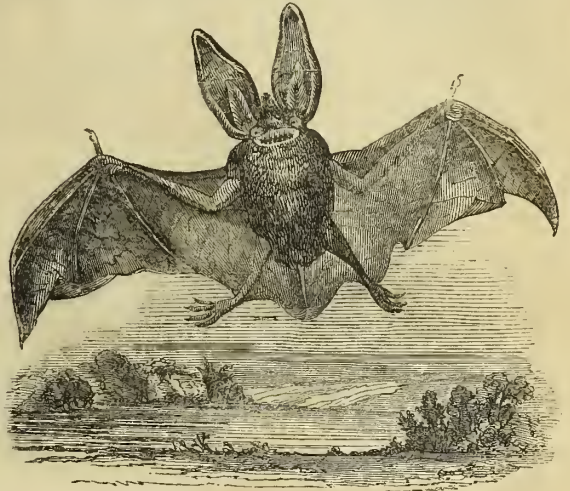
THE GREEN WOODPECKER.

Woodpeckers are, generally speaking, handsome birds, neatly and stoutly made. Their first labours of hammering the tree appear to be the pairing call. The male begins this curious species of wooing, by beating against a hollow portion of the tree, on a female replying, a place is selected in which to build the nest. If it be necessary to excavate any portion of the tree in order to make the hole large enough to receive the nest, the pair labour and feed by turns until this is done. The largest of the British kinds of woodpeckers, is the Green Woodpecker, and which is represented in the above engraving. The following description of it is from "Bewick's British Birds."—"Its bill is two inches long, of a triangular shape, and of a dark horn colour: the outer circle of the eye is white surrounding another of red; the top of the head is of a bright crimson, which extends down the hinder part of the neck, ending in a point behind; the eye is surrounded by a black space, and from each corner of the bill there is a crimson streak pointing downwards; the back and wing coverts are of an olive green; the rump yellow; the quill feathers are dusky, barred on the outer web with black and white; the bastard wing is spotted with white; the sides of the head and all the under parts of the body are white, slightly tinged with green; the tail is marked with bars like the wings; the legs are greenish. The female differs from the male in not having the red mark round the corner of the mouth." This is the most common of the woodpecker genus in this country, and may be met with in most parts of this island, where it is readily discovered by its discordant note; and also by the noise it makes when seeking its food, which consists entirely of insects, their eggs, and larvae. When it discovers a tree that is decayed, it tries with its bill different places, till by the sound it discovers the part that requires the least labour to perforate; it then pecks with its bill till it arrives at the unsound part, which generally affords a plentiful repast. The rapidity of the strokes is so great that they can scarcely be counted; nor can the motion of the head and neck be seen. The tongue is furnished with barbs, and with a glutinous secretion, by means of which it can readily take up small substances, and convey them to its mouth. It also feeds on beetles and ants, and it is more frequently seen on the ground than the other kinds of woodpeckers—and may be seen inserting its tongue into ant holes, from which it draws out these insects in abundance. It will sometimes make an aperture in the side of an ant hill with its bill and feet, and then feeds on the insects and eggs at its leisure. They usually lay five or six eggs in the hollow of a tree, at the depth of two feet or more from the entrance. The young ones climb up and down the tree before they are able to fly. When flying their motion is undulatory and irregular, proceeding forward by jerks, and they take but very short flights.

Occasionally, either the nettle or the brimstone butterfly appears; field crickets open their holes; frogs croak and spawn; the toad appears, and bats may frequently be seen if the temperature has been for some time at or above 50°. Following is the figure of one of the most common of the British bats.

Its length is one inch and three quarters, the extent of its wings is seven inches. Its ears, by which it is distinguished, are more than an inch in length; slightly rounded at the tips, and furnished with a kind of secondary auricle, so placed as to serve for a valve or guard to the auditory passage. It is most commonly seen fluttering about during the evenings of Summer and Autumn. They are supposed to produce two young ones at a birth, which they suckle for sometime, the young being naked and helpless; capable only of clinging to the teats of their mother,

which they do most tenaciously. This habit is necessary, for the mother neither lies nor sits on the ground when she suckles her young, but hangs suspended to the branch of a tree or otherwise. When she goes out to feed, she bears the young thus attached to her body, and continues doing so till they are capable of flight. They lodge in old buildings, hollows of trees, or caves. In these recesses they pass the winter in a torpid state till the warmth of the atmosphere awakes them from their slumbers. The general appearance of the bat, together with its appearing in the dim twilight, at times when ignorance converts anything white into ghosts, has excited the idea of something hideous—and, therefore, the



THE LONG-EARED BAT.

ancients consecrated it to Proserpine, Queen of Hell. Painters usually exhibit fiends and demons with the leathern wings of the bat. Nevertheless, the bat is more useful than hurtful to man, by the destruction of so many insects, which are its favourite food. From experiments made by Spallanzani, on this species of bat and on others, it appeared that they would fly with precision in the darkest chamber without touching the walls, when their eyes have been closely covered; or even entirely out, and their sockets covered with leather. It would, therefore, appear that they must be possessed of some additional sense which enables them to do this.

February is usually found to be the most barren month in the year for flowers. The Crocus will, however, blossom; annexed is its representation:—



THE CROCUS.

This is one of the flowers of which Homer has composed the general couch of Jupiter and Juno.

And sudden hyacinths the turf bestrew,  
And flow'ry crocus made the mountain glow.

ILLUSTR. BOOK 4.

No flower is so sensible of the effects of light and heat as the crocus. Its petals expand during the day, and close at night. But they will expand at night under the light of a lamp or candle; or if placed within the influence of the heat of a fire, though shaded from the light of it, the petals open in such circumstances as readily as they do in bright light.





M D	W D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN.		MOON.				High Water at London Bridge.				Equation of Time.		Day of the Year
			Rises—R. Sets—S.	Declina- tion South	Rises—R. Sets—S.	Souths. D.	Age.	Morning.	Afternoon.	M.	A.	u.	s.		
1	S	1ST SUNDAY IN LENT— <i>St. David</i> — <i>St. David</i> , the patron saint of Welchmen, was Archbishop of Menev. He was a man of considerable learning, and was reputed to possess the power of performing miracles. He died in 544, and was buried in the church of St. Andrew; but his remains were afterwards removed to Glastonbury Abbey.	6 48 R	7 36	Afternoon.	Afternoon	4	4 23	4 43	12 37			60		
2	M		5 39 S	7 14	11 55 S	4 13	5	5 2	5 21	12 25			61		
3	Tu		6 44 R	6 51	Morning.	5 3	6	5 40	5 59	12 12			62		
4	W	<i>Ember Day</i> —The Wednesday, Friday, and Saturday of this week, are called <i>Ember days</i> , and the week in which they occur <i>Ember week</i> . On <i>Ember days</i> our forefathers ate no bread, but what was baked in a simple and primitive fashion under hot ashes; hence the name.	5 43 S	6 28	0 57 S	5 54	D	6 20	6 43	12 0			63		
5	Th		6 40 R	6 5	1 53 S	6 43	8	7 6	7 31	11 46			64		
6	F		5 46 S	5 41	2 41 S	7 31	9	8 3	8 41	11 32			65		
7	S	Venus rises at 3h. 2m. A.M.	6 36 R	5 18	3 23 S	8 18	10	9 22	10 5	11 17			66		
8	S	2ND SUNDAY IN LENT—Raphael born, 1483	5 50 S	4 55	3 58 S	9 4	11	10 45	11 26	11 3			67		
9	M	£1 notes issued, 1797	6 31 R	4 31	4 28 S	9 49	12		0 2	10 47			68		
10	Tu	Jupiter sets at 10h. 32m. P.M.	5 53 S	4 8	4 55 S	10 32	13	0 32	0 55	10 32			69		
11	W	Bishops excluded Parliament, 1640-1	6 26 R	3 44	5 19 S	11 16	14	1 15	1 35	10 16			70		
12	Th	Gregory first Bishop of Rome, Martyr, 590	5 57 S	3 21	5 41 S	11 59	15	1 55	2 13	9 59			71		
13	F	Georgium Sidus discovered, 1781	6 21 R	2 57	Afternoon.		16	2 27	2 41	9 43			72		
14	S	Admiral Byng shot, 1757	6 0 S	2 34	7 57 R	Morning.	17	2 58	3 13	9 26			73		
15	S	3RD SUNDAY IN LENT	6 16 R	2 10	9 7 R	1 29	18	3 27	3 43	9 9			74		
16	M	Gustavus shot, 1792—Battle of Culloden, 1746	6 4 S	1 46	10 16 R	2 16	19	3 59	4 15	8 52			75		
17	Tu	<i>St. Patrick</i> —A grand festival of the church of Rome; and on which day every true Irishman considers it his bounden duty to make himself as happy as a Welchman does on the 1st of March. The Irish venerate <i>St. Patrick</i> , as the introducer of Christianity into Ireland. He is supposed to have been a Scotchman by birth.	6 11 R	1 23	11 23 R	3 6	20	4 32	4 50	8 34			76		
18	W		6 8 S	0 59	Morning.	3 58	21	5 7	5 25	8 16			77		
19	Th		6 7 R	0 35	0 27 R	4 52	22	5 45	6 6	7 58			78		
20	F	Mars sets at 11h. 41m. P.M.	6 11 S	0 11	1 27 R	5 49	23	6 30	6 55	7 40			79		
21	S	<i>Benedict</i>	6 3 R	North.	2 20 R	6 46	24	7 25	7 57	7 22			80		
22	S	4TH SUNDAY IN LENT—Goethe died, 1832	6 14 S	0 36	3 5 R	7 43	25	8 40	9 25	7 4			81		
23	M	Weber died, 1829	5 59 R	1 90	3 42 R	8 40	26	10 12	10 56	6 46			82		
24	Tu	Venus rises at 4h. 27m. A.M.	6 17 S	1 23	4 15 R	9 35	27	11 35		6 27			83		
25	W	<i>Annunciation</i> — <i>Lady Day</i> —This day is more familiarly known in England as <i>Lady-day</i> . It is kept as a festival in the English church, in commemoration of the Incarnation of Christ. In England it is one of the quarter days—on which rent and other dues become payable.	5 54 R	1 47	4 45 R	10 29	28	0 9	0 39	6 9			84		
26	Th		6 20 S	2 10	5 12 R	11 22	29	1 6	1 30	5 50			85		
27	F		5 50 R	2 34	5 37 R	Afternoon.	30	1 50	2 13	5 32			86		
28	S	Abercromby died, 1801	6 24 S	2 57	Afternoon.	1 7	1	2 36	2 56	5 14			87		
29	S	5TH SUNDAY IN LENT—Siege of Acre, 1799	5 45 R	3 21	9 33 S	2 0	2	3 17	3 37	4 55			88		
30	M	Allied Sovereigns entered Paris, 1814	6 28 S	3 44	10 41 S	2 52	3	3 56	4 17	4 37			89		
31	Tu	Mercury sets at 8h. 26m. P.M.	5 41 R	4 7	11 40 S	3 44	4	4 36	4 55	4 18			90		

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth, in each Lunation.	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declina- tions.	Right Ascension.	Declina- tions.	Right Ascension.	Declina- tion North.	Right Ascension.	Declina- tion North.	Right Ascension.	Declina- tion South.	Right Ascension.	Declina- tion North.
First Quarter 4d. 10h. 32m. P.M.	1	22h. 36m.	10° 57's.	22h. 43m.	1° 22' N.	2h. 46m.	16° 59'	2h. 21m.	13° 5'	21h. 46m.	14° 42'	0h. 33m.	2° 48'
Full Moon 13 2 49 A.M.	6	23 11	7 2	22 32	0 11	2 59	17 58	2 25	13 24	21 48	14 31	0 34	2 84
Third Quarter 20 1 58 P.M.	11	22 46	2 39	22 22	1 13 S	3 13	18 54	2 28	13 43	21 50	14 20	0 36	2 0
New Moon 27 5 51 A.M.	16	0 21	2 18	22 17	2 36	3 26	19 45	2 32	14 2	21 52	14 9	0 35	2 7
Apogee 8 7	21	0 54	6 37	22 14	3 47	3 39	20 34	2 36	14 22	21 54	13 59	0 37	2 14
Perigee 24 7	26	1 23	10 39	22 16	4 41	3 53	21 18	2 40	14 42	21 56	13 49	0 38	2 20



## MARCH.

When the constellation Orion is near the meridian it is so well surrounded with stars, as to present the finest view of the heavens in this hemisphere, and it will be in this position during the evenings of the first months of the year, at the following times:—On the first day of January, at 11h.; on the first day of February, at 9h.; and on the first day of March, at 7h.; and on intermediate evenings at intermediate times; therefore, the following remarks apply as well to these months, at those times, as they do to March. The following is the position of the principal constellations. Between the horizon and the Pole Star is a part of Draco; between the Pole Star and the Zenith is Camelopardalus; Auriga occupies the Zenith, which is indicated by the bright star Capella and  $\beta$  Aurigæ, now being near the Zenith; below Auriga is Orion; below Orion is Lepus. To the E. of the meridian is the constellation of the Lynx, situated between Auriga and the Great Bear; below the Lynx are Gemini, or the Twins, Cancer and Canis Minor; to the E. of the latter are Hydra and Leo. To the W. of the meridian and of Auriga, is Perseus, and under that is Taurus, and to the W. of Taurus is Aries; below Taurus is Eridanus, and below Aries is Cetus, a small part of which is setting. To the N. the constellations, Cepheus and Cassiopeia are W. of the meridian, and the latter may be distinguished at all times by the stars within it, forming the letter M or W. These two constellations are situated in the Milky Way, where it is nearest to the Pole Star. A little N. of W., at an elevation of  $35^\circ$  is Andromeda, and immediately below it is Pegasus, a part of which is setting; the brightest star in Andromeda, with three bright stars in Pegasus, form the large square or trapezium of Pegasus, and which will be readily distinguished. At an elevation of  $15^\circ$  in the N.W. by W. is Cygnus; Lyra is setting N. by W.; Corona Borealis, or the Northern Crown, is rising in the N.E. by N., and between it and the Great Bear is a part of Bootis, and in the E. by N. Virginia is rising.

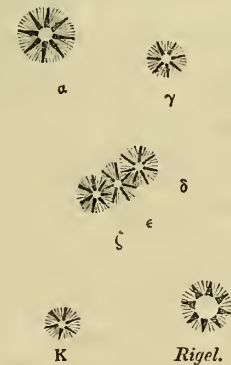
Orion may be considered as the most beautiful of all the constellations; the principal stars in it are represented in the following Drawing, which, being correct, the constellation will be immediately recognised, and will act as a good guide to other stars.

$\alpha$  Orionis has "variable" attached to it, being one of those stars whose magnitude is variable—(See Sir J. Herschel's account of its variability:—*Memoirs Astronomical Society*, Vol. XI). We now proceed to explain the method of finding some of the principal stars visible during the evenings in the first months of the year. To a beginner, a moonlight night, when not too bright, is the best to learn some of the principal stars, because on such nights the smaller stars are not visible. Assuming that the observer has made himself acquainted with the Pole Star, the Great Bear, Capella, and the stars in the constellation of Orion—we proceed as follows:

In the above Drawing, a line from  $\delta$  through  $\epsilon$  and  $\zeta$  soon meets with Sirius the Great Dog Star, at the angular distance of  $23^\circ$  from  $\zeta$ , and  $6^\circ$  W. of Sirius is  $\beta$  Canis Majoris.

An imaginary line from the Great Bear to Capella continued onwards points out the Pleiades; about midway between  $\gamma$  Orionis (See the above Drawing,) and the Pleiades is the bright star Aldebaran, of a reddish tint. A line from the Pole Star to midway between the Great Bear and Capella passes to the constellation of

Variable.



the Twins, and to the stars Castor and Pollux. A line from Rigel (See the above Drawing) passing through  $\epsilon$  Orionis also passes to Castor and Pollux. A line from Pole Star passing between Castor and Pollux, and continued onwards leads to Procyon the Little Dog Star. A line from Procyon to Sirius leads to  $\alpha$  Columba, a bright star near the horizon. A line from Capella passing some distance to the left of Castor and Pollux leads to Regulus, as also a line from Aldebaran, a little to the right of these stars, leads to the same star.

A line from Capella through the Pleiades, leads to  $\alpha$  Ceti, at the distance of  $23^\circ$  from the Pleiades, as does a line from  $\alpha$  Orionis passing  $\gamma$  Orionis, lead to the same star. A line from Castor through Pollux leads to  $\alpha$  Hydra, situated about  $12^\circ$  above the horizon in the S.E. by S. A line from  $\beta$  Aurigæ, through Capella, and continued  $34$  degrees, leads to  $\gamma$  Andromedæ; the same line continued  $13$  degrees further meets with  $\beta$  Andromedæ; and continued  $14$  degrees further meets with  $\alpha$  Andromedæ, at an elevation of  $18$  degrees above the horizon in the W.N.W. The same line continued  $20$  degrees further meets with  $\alpha$  Pegasi, at an elevation of  $7$  degrees above the horizon in the W. by N.

About midway, between Capella and  $\gamma$  Andromedæ, are two stars, usually brighter than several others which are about this place, separated from each other by  $10$  degrees; the northern one is  $\alpha$  Persii; the southern one is that very remarkable star  $\beta$  Persii (Algol.) At times this star shines as brightly as a star of the second magnitude, and at other times only as bright as one of the fourth magnitude; the interval of time between these different degrees of brightness is only  $69$  hours. A line from the Pole Star, through  $\gamma$  Andromedæ, leads to  $\alpha$  Arietis; these two stars, with  $\beta$  Andromedæ, form a conspicuous triangle.

At the distance of  $31$  degrees West of the Pole Star, is  $\beta$  Cassiopeæ, the brightest of the stars in that constellation.

A line from  $\beta$  Cassiopeæ, through  $\alpha$  Andromedæ, leads to  $\gamma$  Pegasi; these two stars, with  $\alpha$  and  $\beta$  Pegasi, form that conspicuous square in Pegasus before referred to.

At an elevation of  $15$  degrees above the horizon in the N.W. by W., is  $\alpha$  Cygni; and at an elevation of  $12$  degrees above the horizon in the E. by N., is  $\beta$  Leonis, just above the head of the Virgin now rising.

A line from  $\gamma$  in the Great Bear through  $\delta$  (See the Drawing in January) continued  $15^\circ$  meets with  $\alpha$  Draconis. Below the Pole Star at the distance of  $38^\circ$  are two bright stars, the one to the East is  $\beta$  Draconis; the one to the West is  $\gamma$  Draconis.

Throughout these directions for finding the stars, whenever distance is mentioned it is to be considered as Angular Distance, the method of easily and correctly estimating which is fully explained in October.

That part of the Milky Way which is visible during the evenings of the first months in the year, may be traced as follows:—Starting from Cassiopeia and Perseus, which constellations are nearly covered by it, it passes by Auriga, the star Capella being a little N. of it, passes between Taurus and Gemini, over a part of Orion, being a little N. of the star  $\alpha$  Orionis, and so down to the horizon and below it; after having reached its most southern extreme, it returns northward, dividing itself into two streams, and these parts become visible in the evenings during the last months of the year, and will be there spoken of.

During the month Venus is a morning star, and she will be nearer to the star  $\alpha$  Aquarii (to find which see the month of November) than to any other star.

Jupiter is about  $10^\circ$  South of the Pleiades, and Mars is a little East of Jupiter.

The Pleiades, Jupiter and Mars will form a neat triangle throughout the month.

## ASTRONOMICAL OCCURRENCES IN MARCH.

PLANETS.				JUPITER'S SATELLITES.		OCULTATION OF STARS BY THE MOON.		
Names	Time of passing the Meridian, or Southing, on the 15th. Day	When near the Moon	Angular Distance from the Moon North or South	Eclipses of		Names of the Stars	Times of disappearance and re-appearance	At the dark or bright limb of the Moon
				1st. Sat.	2nd. Sat.			
				Emersion	Emersion			
Mercury . . .	H. M. 0 43 P.M.	D. H. 28 3	DEG. 1 North	D. H. M. 1 9 55 P.M.	D. H. M. 11 8 7 P.M.	$\kappa$ Cancri	D. H. M. 9 10 38 P.M. 9 11 48 P.M.	Dark Bright
Venus . . .	10 47 A.M.			17 8 15				
Mars . . .	3 52 P.M.	2 2 P.M.	$1\frac{1}{2}$ North		3rd. Sat.	50 Virginis	15 3 41 A.M. 15 4 51 A.M.	Bright Dark
Jupiter . . .	3 0 P.M.	{ 2 2 A.M. 29 10 P.M.	1 South A little South		D. H. M. 15 7 23 P.M.			
Saturn . . .	10 21 A.M.	24 4	$6\frac{1}{2}$ South					
Uranus . . .	1 4 P.M.	27 2	3 South					

March 2d, 9h 12m., Venus in inferior conjunction with the Sun.—(See the month of May.)

March 6th, 0h. 46m. A.M., Mercury in superior conjunction with the Sun.—(See the month of September.)

March 6th, and 27th, Jupiter's Satellites all on the W. side, and on the 16th. and 30th. they are all on the East side of the Planet, at about 7h. in the evening.

March 20th, 11h. 46m. P.M. the Sun enters Aries. Spring commences.

March 21st, 6h. 47. P.M. Venus stationary with respect to the fixed Stars.—(See May)

March 22d, 5h. 10m. A.M., Mercury the nearest to the Sun.

March 31st, 6h. 15m. A.M., Mercury at the greatest elongation, being East of the Sun  $19^\circ$ .—(See September.)





## MARCH.

Then in comes March, that noble arch,  
With wholesome Spring and air,  
The child doth spring to years fifteen,  
With visage fine and fair;  
So do the flowers with softening showers,  
Aye spring up as we see;  
Yet, nevertheless, remember this,  
That one day we must die.

OLD POEM; 1653.

CHILDHOOD SEEKING THE EARLY FLOWERS.—THE FIRST GAME OF SKILL.

MARCH, named from Mars, the god of war, was the commencement of the Roman year, and was, in fact, so considered in England before the alteration of the style; the legal year commencing on the 25th of March. Our Anglo-Saxon ancestors called it *Length-monath*, "because the days did then begin to exceed the nights in length. There is an old proverb which charges March with borrowing certain days from April; and these, being generally stormy, our forefathers endeavoured to account for this circumstance by pretending that March *borrowed* them from April, that he might extend his power so much longer. "Those," says Dr. Jamieson, "who are much addicted to superstition, will neither borrow nor lend on any of these days. If any one would propose to borrow of them, they would consider it as an evidence that the person wished to employ the article borrowed for the purpose of witchcraft against the lenders." There is a different proverb relating to this month, viz., that "A bushel of March dust is worth a King's ransom;" thereby expressing the importance of dry or dusty weather at this particular season of the year, in an agricultural point of view.

St. David founded many monasteries and religious houses, and built a hermitage and chapel in the vale of Llanthony, near the Black Mountains:—

A little lowly hermitage it was,  
Down in a dale, hard by a forest's side,  
Far from resort of people, that did pass  
In travel to and fro; a little wyde  
There was an holy chapelle edifyde,  
Wher in the Hermit dewly went to say  
His holy things each morn and eventyde;  
Thereby a christall stream did gently play,  
Which from a sacred fountaine welled forth away.

SPENSER.

The custom of Welshmen wearing leeks on St. David's Day, has been traditionally referred to the Britons, under their general, St. David, gaining a victory over the Saxons, and transferring from their caps to their own, leeks, as signals of triumph. Sir Samuel Meyrick discredits this story; and infers from some lines of the time of James I., that the leek was assumed upon, or immediately after, the battle of Bosworth Field, which was won by Henry VII., who had many Welshmen (his countrymen), in his army, and whose yeomen-guard was composed of Welshmen; and this inference is strengthened by the fact, that the Tudor colours were white and green, the colours of the leek. Still, this explanation is shaken by the fact of the leek being a native of Switzerland, and, according to the *Hortus Keuensis*, not introduced into England till about the year 1562. Churchill thus satirises the custom:—

March, various, fierce, and wild, with wind-cracked cheeks,  
By wilder Welshman led, and crowned with Leeks.

Lent is commonly said to be named from a Saxon word for Spring. It was originally called Quadragesima, and only lasted forty hours, from 12 on Good Friday to Easter morn; but it was gradually extended to forty days, after the fasts of Moses, Dent. ix.; of Elijah, 1 Kings xix.; of the Ninevites, Jonah iii.; and of our Lord himself, Matthew iv.; all of which fasted forty days. This fast begins on Wednesday, because the six Sundays, being festivals, were not in-

cluded in the fasting days; and, therefore, unless four days were added before the first Sunday in Lent, the fast would only last thirty-six days instead of forty.—(*Elementa Liturgica*)

Herrick has a quaint instruction:—

## TO KEEP A TRUE LENT

Is this a Fast, to keep  
The larder leaner,  
And cleaner,  
From fat of veales and sheep?  
Is it to quit the dish  
Of flesh, yet still  
To fill  
The platter high with fish?  
Is it to fast an houre  
Or rag'd to go,  
Or show  
A down-cast look, and sower?

No; 'tis a Fast to dole  
My sheaf of wheat,  
And meat,  
Unto the hungry soule.  
It is to fast from strife  
From old debate,  
And hate;  
To circumscribe thy life:  
To show a heart grief-rent  
To starve thy sin,  
Not bin;  
And that's to keep thy Lent.

*Battle of Culloden*.—The present year is the centenary of this memorable event, which finally extinguished the hopes of the House of Stuart; it was, indeed, a blood-stained victory:

Drummosse muir, Drummosse muir,  
A wae'd day it was to me,  
For there I lost my father dear,  
My father dear and brethren three.

*Midlent*.—The Fourth Sunday in Lent was anciently kept by Catholics visiting their mother-church, and making their offerings at the high altar: thence arose the dutiful custom of visiting parents on this day, therefore called *Mothering Sunday*; when the children were treated with a regale of excellent furnety, or they presented their mother with a sum of money, a trinket, &c. On the following Sunday, preceding Palm Sunday, fried peas, or *carlings*, are eaten in the North.

*St. Patrick's Day*.—The shamrock, or trefoil, is worn as the national emblem of Ireland, from St. Patrick having referred to it in illustration of the Trinity, when he landed near Wicklow, to convert the Irish to Christianity in 433. Still, the trefoil is not fully expanded on St. Patrick's Day, and old authors affirm that the shamrock was eaten, and was a sour plant: now, wood-sorrel alone is sour, is an early Spring plant, is abundant in Ireland, is a trefoil, and is called by old herbalists, *Shamrog*.

With March we may expect "many weathers;" and there is a very old proverb, "March hackham, comes in like a lion, goes out like a lamb."

By the storms of this period, we are reminded of a touching epitaph on two infants buried in the churchyard of Hemel Hempstead, in Hertfordshire:

As fades the flower in early Spring,  
When tempests sweep the land,  
So droops the tender infant's form,  
When seized by Death's cold hand.  
Farewell, sweet babes, the loss is ours,  
For you are gone to rest,  
The Shepherd has but called his lambs,  
To fold them to his breast.

I. T.



## MARCH.

DURING this month the pheasant crows; the wryneck appears; the crow builds; the golden crowned wren sings—(See January); the blackbird lays; the raven sits; the willow wren appears; the turkey lays; the sand marten, the swallow, and the pied wagtail appear.



BITTERN.

Of all the birds which resort to this island for food and shelter, that of the swallow tribe is of all others the most inoffensive and social; all, except one species, attach themselves to our houses, and clear the air of gnats and troublesome insects. The sand marten is the smallest of all our swallows, and the least numerous of them; it frequents the steep sand banks in the neighbourhood of rivers, in the sides of which it makes deep holes and places the nest at the extremity. The length of the bird is less than five inches. The bird's head, neck, breast and beak is of a mouse colour; over each eye there is a light streak; the throat, the forepart of the neck and belly is white, the wings and tail are brown. The pied wagtail is a very common bird; its length is about seven inches, bill black, eyes hazel, hinder part of the head and neck black; forehead, cheeks, and sides of the neck white; the fore part of the neck and part of the breast are black, bordered by a line of white; the back and rump are of a dark ash colour; lower part of the breast and belly white, legs black. During the years 1843 and 1844, the times of the arrival of many birds were recorded by John Blackwall, Esq., F.L.S., of Llanrwst, Denbighshire, North Wales. (See the reports of the 13th and 14th Meetings of the British Association for the Advancement of Science.)

About the beginning of this month, in wild and unfrequented places, near rivers, is heard the booming cry of the bittern; of this cry, Buffon says, "Solemn and dreary as in an evening may appear the various notes of the secluded inhabitants of the banks of the unfrequented rivers, whether we consider the loud scream of the wild goose, the croaking of the mallard, the whining of the lapwing, or the tremulous neighing of the jack snipe, there is no tone so dismally hollow as the booming of the bittern. It is impossible for words to give those who have not heard this evening call, an adequate idea of its solemnity. It is like the interrupted bellowing of a bull, but more hollow and louder, and is heard at a mile's distance, as if issued from some formidable being that resided at the bottom of the waters." To this dismal cry, superstition has added her terrors, and among peasants, whenever heard, it is supposed to be the foreteller of evil. Buffon concludes his account of this singular bird, by quoting the following:—"I remember, says a modern author, in the place where I was a boy, with what terror this bird's note affected the whole village; they considered it as the prelude of some bad event, and generally found or made one to succeed it. I do not speak ludicrously; but, if any person in the neighbourhood died, they supposed it could not be otherwise, for the night-raven had foretold it; but, if nobody happened to die, the death of a cow, or a sheep, gave completion to the prophecy." Terrible as this cry is to the peasant, it is no other than the love cry to courtship, or connubial felicity; and in this month the neighbourhood of the bird may be discovered by this note, which it has erroneously been supposed to make by thrusting its bill into the cavity of a dry reed, and blowing therein; the noise is however made when it is in an erect position, and seems to be caused by the bird's blowing hard through its bill, which at that time is nearly closed. The length of the bittern is about two feet, its height when it stands up is about two feet, and in breadth of the wings when expanded about four feet, and its weight is about three pounds; the length of its bill is about four inches.

The following is the description given by Bewick—(See his *British Birds*):

"The beak is strong at the base, straight, sharp on the edges, and gradually tapers to an acute point: the upper mandible is brown, the under inclining to green, the mouth is wide, the gape extending beyond the eyes, with a dusky patch at each angle; the irides are yellow. The crown of the head is somewhat depressed, and

covered with long black feathers; the throat is yellowish white; the sides of the neck pale rust colour, variegated with black, in spotted, waved, and narrow transverse lines, and on the fore part, the ground colour is whitish, and the feathers, fall down in less broken and darker lengthened stripes. These neck feathers, which it can raise and depress at pleasure, are long and loose, and, inclining backward, cover the neck behind; those below them on the breast, to the thighs, are streaked lengthwise with black, edged with yellowish white; the thighs, belly, and vent are of a dull pale yellow, clouded with dingy brown.

"The plumage on the back and wings is marked with black zigzag lines, bars and streaks, upon a ground shaded with rust colour and yellow. The bastard wings, greater coverts, and quills are brown, barred with black. The tail, which consists only of ten feathers, is very short; the legs are of a pale green, bare a little above the knees; the claws, particularly those on the hind toes, are long and sharp, the middle ones serrated.

"The female is less than the male; her plumage is darker, and the feathers on her head, breast, and neck are shorter, and the colours not so distinctly marked."

The bittern, though not numerous, is dispersed throughout this country; it is a shy and solitary bird, living at most in pairs, and as soon as the young can leave, they follow the habits of their parents, living alone till they pair and have families. Thus, in whatever point of view we consider them, they are a very singular race of birds. For the want of room we cannot say more about them; but, from their peculiar habits, they are well worthy of a more lengthened account.

## SPRING.

Fresh Spring, the herald of love's mighty King,  
In whose cote-armour richly are display'd  
All sorts of flowers, the which on earth do spring,  
In goodly colours gloriously array'd.

SPENSER.

During this month the following plants will blossom:—The crocus in meadows; sweet violet on hedge banks; narcissus (daffodil), in moist thickets; the mouse-ear chickweed on walls and in rubbish; the sloe tree in hedges; hairy lady's smock in moist pastures; the common coltsfoot in moist places; the daisy in pastures; the common butcher's broom on gravelly heaths; the poplar and the yew tree may be expected to blossom.

The violet that so sweetly perfumes the morning air of Spring, and is the emblem of Modesty, now beautifully embroiders our banks where the soil is light and where there is partial shade.



DAISY.

The English name of Daisy is derived from a Saxon word, meaning Day's eye, possibly so called, from the nature of its blossom, which expands at the opening of day and closes at sun set.

The little daisie, that at evening closes.

SPENSER.

The daisy contributes more than any other flower to infantine amusement, and the joys of childhood, and, hence, it is the emblem of innocence.

—in the Spring and play-time of the year,  
That calls the unwonted villager abroad  
With all her little ones, a sportive train,  
To gather kingcups in the yellow mead,  
And pink their hair with daisies.

COWPER.

This little flower was highly thought of by Chaucer, who says—

—Of all the flowers in the meade,  
Then love I most these flowers white and rede,  
Such that men called Daisies in our town:  
To them I have so great affection.

The most careless observer of plants must have noticed that the daisy not only closes its petals at night, but that they are also carefully folded over the yellow disk in rainy weather.—(See the beautiful poems on the Daisy, by Wordsworth, Montgomery, and Burns.





ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.

M	D		Sun.			Moon.			High Water at London Bridge.			Equation of Time		Day of the Year
			Rises—S.	Declina—N.	Age	Rises—S.	Declina—N.	Age	Morning	Afternoon	Evening	Add.	Subtract.	
1	W	All Fools' Day—This is a holiday, the origin of which cannot be traced; unless it be a travesty upon All Saints' Day (see Nov. 1). It is appropriated to innocent practical jokes among young people, the person deceived being termed in England an April fool, in Scotland a gowk, and in France <i>un poisson d'avril</i> (an April fish)	5 38	4 30	0 34	5 24	6	5 14	5 32	4 0	91			
2	Th		6 33	4 53	0 34	5 24	6	5 53	6 14	3 42	92			
3	F		5 34	5 16	1 18	6 12	8	6 36	7 1	3 24	93			
4	S	Game Certificates expire	6 37	5 39	1 56	6 59	8	7 27	7 57	3 6	94			
5	S	PALM SUNDAY.—Called in the English prayer-book the Sunday next before Easter; also sometimes called Passion Sunday, as being the commencement of Passion Week, or the week celebrative of the sufferings or passion of our Lord	5 29	6 2	2 29	7 44	9	8 37	9 19	2 48	95			
6	M		6 40	6 25	2 58	8 28	10	10 0	10 38	2 31	96			
7	Tu		5 24	6 48	3 21	9 11	11	11 13	11 46	2 13	97			
8	W	Mercury sets at 8h. 21m. P.M.	6 43	7 10	3 44	9 54	12	0 15	1 56	98				
9	Th	Maundy Thursday.	5 20	7 32	4 8	10 38	13	0 39	0 57	1 39	99			
10	F	GOOD FRIDAY.—This day, as the anniversary of the Crucifixion, has been for ages solemnly observed throughout Christian Europe	6 45	7 55	4 29	11 24	14	1 16	1 33	1 22	100			
11	S		5 15	8 17	4 49	12 0	15	1 51	2 8	1 6	101			
12	S	EASTER SUNDAY.—	6 48	8 39	0 11	16	16	2 24	2 42	0 50	102			
13	M	Easter Monday	5 11	9 1	9 13	1 17	3	3 0	3 18	0 34	103			
14	Tu	Venus rises at 3h. 44m. A.M.	6 52	9 22	10 20	1 53	18	3 34	3 52	0 18	104			
15	W	Easter Term begins	5 7	9 44	11 23	2 48	19	4 10	4 29	0 18	105			
16	T	Passage of the Khyber Pass by Gen. Pollock, 1842	6 55	10 5	3 44	20	20	4 47	5 7	0 12	106			
17	F	Franklin died, 1790, aged 84	5 2	10 26	0 18	4 42	21	5 29	5 52	0 26	107			
18	S	Mars sets at 11h. 30m. P.M.	6 59	10 47	1 3	5 38	22	6 18	6 47	0 40	108			
19	S	LOW SUNDAY.—So termed from the church-service being somewhat abridged or lowered from the preceding Sunday.—Byron died, 1824, aged 37	4 58	11 8	1 43	6 34	23	7 19	7 53	0 54	109			
20	M		7 2	11 29	2 16	7 28	24	8 34	9 16	1 7	110			
21	Tu	Spanish Armada destroyed, 1657	4 55	11 49	2 46	8 21	25	9 56	10 35	1 20	111			
22	W	Duke of Sussex died 1843, aged 70	7 6	12 10	3 13	9 13	26	11 13	11 48	1 32	112			
23	Th	St. George.—St. George, the patron saint of England, as St. Patrick, St. David, and St. Andrew, respectively, are of Ireland, Wales, and Scotland	4 51	12 30	3 39	10 4	27	0 14	1 44	1 13	113			
24	F		7 10	12 50	4 5	10 55	28	0 41	1 7	1 56	114			
25	S	St. Mark.—Princess Alice born, 1843	4 47	13 9	11 47	11 47	29	1 30	1 52	2 7	115			
26	S	2ND SUNDAY AFTER EASTER	7 13	13 29	8 21	12 1	30	2 12	2 35	2 17	116			
27	M	Stothard died, 1834	4 43	13 48	9 25	1 32	2	2 55	3 14	2 27	117			
28	Tu	Jupiter sets at 8h. 10m. P.M.	7 16	14 7	10 23	2 24	3	3 34	3 53	2 36	118			
29	W	Last war with France commenced, 1803	4 39	14 26	11 12	3 15	4	4 12	4 31	2 45	119			
30	Th	Mercury rises at 4h. 12m. A.M.	7 19	14 44	11 53	4 4	5	4 49	5 9	2 54	120			

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth, in each Lunation.	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
First Quarter 3d. 5h. 12m. P.M.	1	1h. 48m.	14°	6' 22h. 23m.	5° 20'	4h. 8m.	22° 6'	2h. 46m.	15°	7 21h. 59m.	13° 37'	0h. 39m.	3° 28'
Fall Moon 11 5 25 "	6	1 58 15	29 22 31	5 30 4	23 22 41	2 50 15	27 22 1	2 50 15	27 22 1	13 28 0	40 3 25		
Third Quarter 18 8 24 "	11	1 59 15	23 22 48	5 21 4	36 23 12	3 54 16	47 22 2	3 54 16	47 22 2	13 19 0	41 3 42		
New Moon 25 4 48 "	16	1 32 43	54 22 55	4 55 4	50 23 38	2 59 16	7 22 4	2 59 16	7 22 4	13 11 0	42 3 48		
Apogee 5 1 "	21	1 40 11	33 23 10	4 12 5	4 24 0	3 3 16	27 22 6	3 3 16	27 22 6	13 4 0	43 3 56		
Perigee 20 11 "	36	1 31 9	8 23 26	3 15 5	18 24 17	3 8 16	47 22 7	3 8 16	47 22 7	12 57 0	44 4 1		

NOTE.—Where a blank occurs, in the column under high water, it shows that there is only one time of high water on that day. Thus, on April 8th, there is only one high tide; it occurs at 15 minutes after noon; and the next high water is at 23 minutes after midnight, or on the morning of the 9th day.



## APRIL.

On the 25th. day an Eclipse of the Sun, visible in England, takes place, and as no phenomenon usually excites more interest and curiosity, we shall endeavour to explain its cause and give its appearance: it is the only one visible in England this year. The Sun, the Moon, and the Earth, being three solid bodies, whenever they are in the same straight line, an obscuration of either of the first two from the third, or an Eclipse, will take place, in consequence of the interposition of one of these solid bodies between the other two.

When the Moon is between the Sun and the Earth, which can only occur when she is new, an Eclipse of the Sun takes place; and when the Earth is between the Sun and the Moon, which can only take place when the Moon is full and opposite to the Sun, an Eclipse of the Moon takes place. The average number of Eclipses in one year, is about four; there cannot be less than two, nor more than seven, of which five will be of the Sun, and two of the Moon; and when there are only two they will both be of the Sun. During the year 1846 there will be only two, and of course both of the Sun.

The Moon, in consequence of her variable distance from the Earth, appears to us sometimes precisely the same size as the Sun; and if this be the case at the time of an Eclipse, such Eclipse would be total; sometimes the Moon being farther from us, appears to be smaller than the Sun; and if an Eclipse takes place at this time, the whole of the Sun would be hidden except a bright luminous ring around it: and the Eclipse would be annular; in other cases, however, which are by far the most numerous, the Sun will be only partially eclipsed. We shall now endeavour to make this more clear by an Illustration.



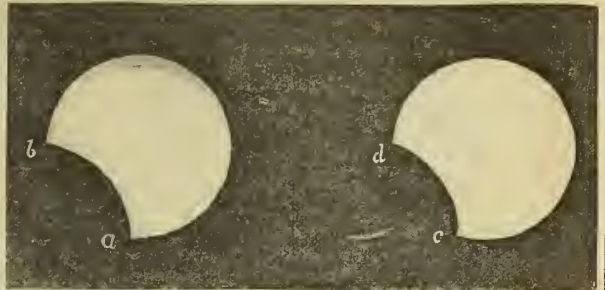
Let  $a b$  be considered to be the Sun: the distance from  $a$  to  $b$  is about 883,000 miles.  
 $e d$  .. .. . Earth: .. ..  $e$  to  $d$  is about 7,900 miles.  
 $e f$  .. .. . Moon: .. ..  $e$  to  $f$  is about 2,160 miles.

The distance that the Sun is from the Earth is about 95,000,000 of miles.

The distance that the Moon is from the Earth is about 240,000 miles.

If lines be drawn from the extreme portions of the Sun, as at  $a$  and  $b$ , just touching the extreme portions of the Moon at  $e$  and  $f$ , and continued till they meet the Earth at  $g$  and  $h$ , and if other lines were drawn for every other part of the Sun between  $a$  and  $b$ , just touching the Moon, and continued to the Earth, then the termination of these lines would inclose a portion of the Earth's surface. Now without this space no part of the Sun light is cut off, and no Eclipse takes place, but within it at every part a portion of the Sun light, more or less, is cut off. This portion would be found by drawing lines from any place just touching the outside of the Moon, and continued to the Sun: those parts of the Sun which would be included within these lines, would of course be hidden, and from those parts of the Sun which were not hidden by the Moon, Sun light would come, and a partial Eclipse would take place. If the observer be situated in the same straight line joining the centres of the Sun and Moon, then either an annular or a total Eclipse would take place, depending on the circumstances before referred to. The Eclipse of the 25th. of this month is annular on the Equator in the N. Pacific Ocean, the West Indies, the Atlantic Ocean, and a part of Africa. In Europe

it is only partial, and the amount of it is represented in the following engraving, at the time of the greatest obscuration at Greenwich and at Dublin. It is evident that the being able to foretell an Eclipse, must depend on a good knowledge of the relative size, distance, and the motions of the bodies eclipsed, and the agreement in this respect of the predictions and observations of such phenomena, proves that the theory upon which such predictions are calculated must be near the truth.



GREENWICH.

DUBLIN.

The Eclipse commences at  $a$  at 5h. 32m. P.M. at Greenwich; it is at its greatest obscuration at 6h. 14m. P.M. and ends at  $b$  at 6h. 54m. P.M.

At Dublin it commences at 5h. 29m.; its greatest obscuration is at 6h. 11½m, and it ends at 6h. 52m Greenwich time, or at 5h. 4m., 5h. 46m., and 6h. 27m., Dublin time respectively.

At Edinburgh the Eclipse is very nearly the same as at Greenwich, and commences at 5h. 32m.; its greatest obscuration at 6h. 8m., and ends at 6h. 43m. Greenwich time, or at 5h. 19m., 5h. 56m., and 6h. 31m. Edinburgh time respectively,

In observing the Eclipse, dark glasses should be used to defend the eye from the intensity of the Sun light. Should any of our readers not be provided with a coloured or smoked glass at the time the Eclipse takes place, they may observe the image in water, placed in a situation that the water is not agitated by the wind. But it will be better to be provided with a piece of smoked glass, which may be done as follows:—Common glass used for windows will do; first wipe it dry and warm it by the fire, or it may crack when applied to the blaze of a candle: then draw it gently through the flame, and repeat the same operation, only leaving a small portion at one end untouched, and darken the other end the most, and then gradually less and less towards the untouched end. The tinge at one end should be the slightest possible, and at the other so dark that you cannot see the flame of the candle through it. Then a darker or lighter part of this glass can be brought before the eye, according as the brightness of the Sun may need it.

On April 1d. Venus can be found as follows:—An imaginary line from  $\alpha$  Andromedæ through  $\alpha$  Pegasi (two of the stars in the trapezium of Pegasus) and continued 20 degrees beyond the latter star leads a little to the right of the planet. On the 16th day an imaginary line from  $\beta$  Pegasi through  $\alpha$  Pegasi, and continued onwards leads to Venus at the distance of 18 degrees from  $\alpha$  Pegasi. On the last day of the month a line from  $\alpha$  Andromedæ through  $\alpha$  Pegasi passes about 4 degrees to the left of the planet.

On April 1d. Mars will be 6 degrees North of Aldebaran, and Mars, Aldebaran and the Pleiades form a neat triangle. During the month Mars will be moving towards Castor and Pollux. At the end of the month a line from the Pole star to  $\alpha$  Orionis passes Mars at the distance of 18 degrees North of  $\alpha$  Orionis.

## ASTRONOMICAL OCCURRENCES IN APRIL.

PLANETS.				OCULTATION OF STARS BY THE MOON.		
Name	Time of passing the Meridian or South, on the 15th. day	When near the Moon	Angular Distance from the Moon North or South	Name of the Stars.	Times of disappearance and re-appearance.	At the dark or bright limb of the Moon.
Mercury . . .	H. M. 0 20 P.M.	D. H.	DEG.	$\lambda$ Geminorum . }	D. H. M. 3 11 51 P.M. 4 0 49 "	Dark Bright
Venus . . .	9 20 A.M.	22 9	3 South	$A^3$ Caneri . }	5 7 0 P.M. 5 8 4 "	Dark Bright
Mars . . .	3 14 P.M.	29 7	5 North	28 Virginis . }	10 7 37 P.M. 10 8 14 "	Dark Bright
Jupiter . . .	1 25 P.M.	26 6	¼ North			
Saturn . . .	8 31 A.M.	21 3 A.M.	6 South			
Uranus . . .	11 9 A.M.	24 2 A.M.	3 South			

April 7th, 9h. 30m. P.M., Venus at greatest brilliancy.—(See May.)

April 19th, 9h. 16m. A.M., Mercury in inferior conjunction with the Sun.—(See September.)

April 12th, 7h. 49m. Jupiter's 2nd. Satellite Eclipsed, re-appearing on his W. side at the distance of one-third of his diameter from him. The Satellites are not visible after the 18th. of this month, Jupiter being too near to the Sun.

April 25th, Sun Eclipsed.—(See above.)





SMYTH.

APRIL.

Then brave April doth sweetly smile,  
The flowers do fair appear,  
The child is then become a man,  
To the age of twenty year.  
If he be kind, and well inclin'd,  
And brought up at the school,  
Then men may know if he forshow,  
A wise man or a fool. OLD POEM; 1603.

LET LOOSE FROM SCHOOL.—BIRDS' NESTING.—GAMES OF ACTIVITY AND STRENGTH.

APRIL is usually considered to have been named from *Aperire*, to open; either from the opening of the buds, or of the bosom of the Earth, in producing vegetation. The Saxons called it *Oster*, or *Easter Monath*, in which month the feast of the Saxon goddess *Eastre*, *Eoster*, or *Easter*, is said to have been celebrated.

*Palm Sunday* is named from the boughs of Palms being carried in procession in imitation of those which the Jews strewed in the way of Christ, when he went up to Jerusalem. The Palm-tree was common in Judea, and planted everywhere by the way-side. Sprigs of box-wood are still used as a substitute for Palms in Catholic countries; and willow, laurel, yew, and box, for the decoration, or *dressing*, of churches in England. The blossoms of the willow, too, are called *Palm*, because of their coming forth before any leaves appear, and flourishing most before Easter, wherefore they are gathered to deck houses on Sundays. The ceremony of bearing Palms in England was retained till the 2nd year of the reign of Edward VI.; and it was formerly a proverbial saying, "He who hath not a Palm in his hand on Palm Sunday must have his hand cut off." The custom still lingers in some rural districts, though not as a religious observance.

In the Catholic church, Palm Sunday is the first day of the *Holy Week*; and at Rome, Palms are blessed by the Pope, who is borne in grand procession round the Sala Regia of the Vatican; where the *Tenebræ* and *Miserere* are sung by the Pope's choir, as well as at St. Peter's.

The *Great or Passion Week* was kept by the early Christians, as a season of rigorous abstinence from whatever could delight the body, that the soul might more readily accompany the Saviour in his sufferings, and realize "the great, the unspeakable blessings procured in it for man." For, in this week, to sum up the teaching of the Church in the eloquent language of Chrysostom, "the long war was brought to a close, death was quenched, the curse removed, the tyrannous empire of the devil overthrown; his goods plundered, God and man reconciled; heaven became accessible, men and angels were joined together; what had been disordered was united; the partition wall broken down, the barrier taken away; the God of peace made peace between the things above and the things on earth." The services of the church followed throughout the course of this week, the actions or sufferings of the Saviour. Thus, on the Holy Thursday, the sacrament was received in the evening after supper, because that was the time of its original institution.—(*Feasts and Fasts*). This was called also *Die Mandati*, i. e. the command of Christ to his disciples when he washed their feet, to follow his example; whence comes *Maundy Thursday*; on this day, the Pope washes the feet of Poor priests at Rome, as the Kings of England, or their Almoners, formerly washed the feet of as many poor men as the sovereign was old, at Whitehall. Alms, or *maund*, were then distributed; and this part of the custom is retained to our day; for which purpose, certain coins are struck by the Royal Mint every year and termed *Maundy Money*.

*Good Friday*, as the day on which the Lord gave himself up for us, was the appointed time for the absolution of those who had been subjected to penance for their sins. The Fast of Friday was prolonged, by all who were able to bear it, over the succeeding Saturday, while Christ remained in the tomb till cock-crow on the Easter morning; and during the whole of that night the people continued assembled in the churches, in the expectation—an expectation apparently derived from the Jews—that on that night the Messiah would appear to receive his kingdom; of which event, as is well known, the Christians from the earliest times, confidently expected the speedy happening. Thus was the period preceding Easter kept in the fourth century.—(*Feasts and Fasts*.) And, "as Good Friday is so called from the blessed effects of our Saviour's Passion, so the day of his Resurrection is named Easter, from the Saxon *Oster*, to rise."—(*Elementa Liturgica*.)

Of the present observances of Easter we can give but a few notes. At Rome, the ceremonies are continued on Friday and Saturday, and terminate on Sunday with the Pope blessing the people from the Portico of St. Peter's; illuminations, fireworks, &c. In England, the Good Friday Bun is eaten, derived from the sacred *Boun*, which was offered at the Arkite Temples; marked with the cross in commemoration of the passion of Christ on this day. The dressing of churches with flowers and evergreens on Easter Day is but little kept up. The Easter Holidays are but slightly observed; though our ancestors had their water quintain, ball-play, heaving or lifting, barley-break, stool-ball, &c.; and the good King Alfred appointed the week after Easter to be kept holy. On "God's Sondaye," (Easter Day,) the ancient hall fire was discontinued, the "black wynter brides" put aside, and the hearth "gayly arrayed with fayne flowres, and strewed with green rythes all about."—(A. D. 1511.)

St. George was a brave soldier, in the ranks of Diocletian. Edward III. at the battle of Calais, in the year 1349, joined to England's guard St. Edward the Confessor, the name of St. George; and invoked both to his arms; next year, the order of the Garter was established, dedicated to St. George, whose emblem is preserved in its rich jewel.

St. Mark is depicted with a lion couchant, winged, by his side; because the lion is emblematical of the nervous solidity of his writings; and the wings of the more than human powers displayed in their composition.

On the 25th of April is the Jewish Festival of the Passover, or *Paschal Lamb*. The Paschal flower usually flowers at this period, in chialy pastures.

April is the season for healthy out-door sports: the hoop may be seen in classic sculpture; and leap-frog is mentioned by Shakspeare and Ben Jonson.

An old poet has thus versified the weather characteristic of the month:

May never was the month of love,  
For May is full of flowers;  
But rather April wet by kind;  
For Love is full of showers.



## APRIL.

This month is the most remarkable in the year for the arrival of migratory birds; amongst them may be expected the yellow wren, the common sandpiper, the redstart, the cuckoo, the lesser pettychaps, the black cap, the whitethroat, the whinchat, the nightingale, the pied flycatcher, the swift, the middle yellow wren, the willow wren, the fern owl, or goatsucker, &c. The Snipe pipes, the Tit-lark sings, and the Turtle coos.



THE GOATSUCKER.

The Yellow Wren is about five inches in length; bill brown, inside and edges yellow; eyes hazel; upper parts of its plumage yellow; inclining to a pale olive green; under pale yellow; over each eye there is a whitish streak; the wings and tail are of a dusky brown, with pale edges; legs yellowish brown. This species is rather scarce.

The Common Sandpiper is about seven and-a-half inches in length; the bill is about an inch long, black at the tip, fading into pale brown towards the base. The head and hinder part of the neck are brownish ash, streaked downwards with dark narrow lines; the throat, the fore part of the neck and the belly are principally white. The principal colour of the upper parts of the plumage is ash, blended with glossy olive brown. The Redstart is six inches in length; is but little more than half an ounce in weight; bill short; eyes hazel; legs and claws slender.

The cry of the male Cuckoo is well known, and is generally heard about the middle of this month; it ceases the latter end of June. The bird is fifteen inches in length, twenty five in breadth, and it weighs about four ounces-and-a-half; its bill is black, and somewhat bent; irides and eyelids yellow; the tail consists of ten feathers of unequal length. The female differs in colour, being more inclined to brown, and is nearly an inch shorter than the male.

The Fanvette or Pettychaps,—length about six inches; bill blackish; eyes dark hazel; upper part of the body dark brown; throat and belly of a silvery white. This bird frequents thickets, and imitates the notes of other birds. The Lesser Pettychaps,—length six inches; bill pale brown; upper part of the body brown; this bird is also a mocker. The Black Cap is about five inches in length; the top of its head is black; sides of the head and back of the neck ash colour; beak and wings of an olive grey; the throat and breast of a silvery grey; belly white; legs blue.

The White Throat is about five inches and a half; bill dark brown, lighter at the base; the upper part of the head and beak are of a reddish ash colour; throat white; breast and belly silvery white; the wings and tail are dusky brown. The breast and belly of the female are entirely white.

The Whinchat is in length about five inches; bill black; the feathers on the head, neck and back, black; a streak of white passes from the bill over each eye, towards the hinder part of the head, which is white.

The Nightingale is six inches in length; bill brown; the whole of the upper part of the body is brown: the under parts pale ash colour. The female is very similar; this bird is, therefore, not remarkable for the richness of its colours: though deservedly so for the excellence of its song.

The Pied Flycatcher, length nearly five inches, breadth about nine; bill black; eyes hazel; forehead white; top of the head, the back, the tail and legs are black; all the under parts from the bill to the tail are white; the female is rather less, and has the colours more blended, the white parts approaching to dusky and the black not so deep a hne, and also wants the white on the forehead, so conspicuous in the male; both sexes vary in their markings, as is frequently the case with pied birds.

The Swift is nearly eight inches in length; the wings measure from tip to tip, eighteen inches; its general colour is sooty black. It arrives later, and departs sooner than any other of the swallow tribe.

The Goatsucker, which we have engraved above, has several names in different parts of the country, as the night-hawk; forn-owl; churn-owl; goat-owl; wheel-bird; night-jar; night-swallow, &c.

This bird is the only night-bird which preys upon insects on the wing; it has a great number of names, a few of which we have mentioned. The engraving will give some idea of its form and markings. Its length is about ten and a half inches; its breadth about eighteen; weight about three ounces; bill small, flat, weak, and somewhat hooked at the tip; mouth large; eyes large, full and black; legs slender, short, feathered below the knees. The plumage is freckled with browns of various hues, mixed with rust colour and white. The male is distinguished by an oval white spot on the two outside tail feathers.

This bird is very much in the habit of resorting to cool places, where cattle stand when annoyed by flies; and it stood accused at a very early age of sucking goats, which has no foundation but in ignorance; the bill being quite unfit for any kind of suction, and, instead of doing any harm to animals in such situations, it does them a great deal of good by ridding them of flies which annoy them.

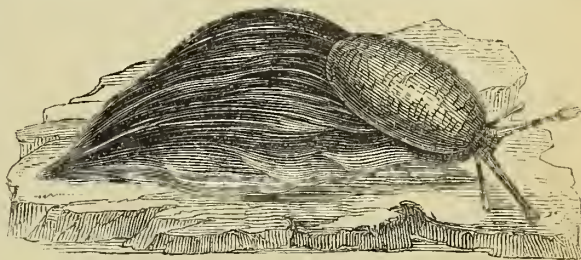
Much activity during this month pervades the insect world; and, every day fresh ones are seen. Of these, the following may be expected:—the stinging fly; red ants; common black fly; lady bird; black snail; shell snails, in numbers; large bat; several kinds of flies; cabbage butterfly, &c.

The mouth of the goatsucker, including the bill, is very curious. Its gape is wider than that of any other birds of these islands. During the day it resorts to low woods and coppices, where it remains till the dusk of the evening, when it goes in search of food, which consists of beetles, moths, cockchaffers, &c.

The Slug is characterised by having an oblong body, furnished above with a fleshy shield, and beneath with a flattened expansion, answering the purpose of a foot or locomotive organ. On the right side of the breast is a large orifice; and on the front of the head are four feelers or tentacula, or, as they are popularly termed, horns.

The most familiar example of this genus is the common black slug, generally called the black snail, so frequently seen in fields and gardens in damp weather. They are produced from whitish gelatinous eggs, deposited in shady situations, beneath the surface of the ground.

This animal is so well known that a more minute description of it would at first appear not needed; but, as it is one of those unfortunate animals whose appearance inspires mankind with disgust, and renders it an object of persecution, as such, we fear but few of our readers would be tempted to examine it, or to think it worthy of attracting any portion of their admiration. We shall, therefore, be more particular in its structure than we otherwise should, in the hopes of awakening some feelings of compassion towards it.



BLACK SLUG.

The body is, as before remarked, oblong; it crawls on its belly; progressing in its motion by means of internal muscles, so arranged as to give a fixed reliance on each in succession, as the advance forward is made. In certain situations where the ground is ill adapted to the animal's locomotion, a slimy juice is expelled from its body to smooth the path, or give it an additional hold. The skin is thick. It has four tentacula, capable of considerable extension; the larger or hinder pair are furnished with eyes at their summits; these, as well as the other pair, act as feelers to assist in avoiding danger, and it is said that if these be destroyed they will again form. In almost all particulars, except in not being furnished with a shell, they resemble the common garden-snail. This animal is so constantly under our convenient observation, that we need not describe it; this little creature, which we so cruelly crush beneath our feet, considering it as a common enemy, would well repay witnessing its interesting operations, and particularly to those who are studying conchology; here they can trace the various changes that take place, from the slight viscous covering with which the animal's body is first coated or merely glazed, till that substance becomes a firm shell adapted to the form and use of its inhabitant. And in what other animal can he watch the formation of the shell so easily? In the open fields these creatures perform useful purposes in conformity to the ends of their creation, by consuming the exuberant productions of nature, which, without its operation, would encumber the surface of the ground, and check the progress of future vegetation, &c. All these animals feed entirely on vegetables. We would bespeak some compassion towards these much persecuted creatures; but need we say more, than that, where great reproductive powers, or a strong tenacity of life, exist in any class of the Almighty's creatures, great ends are to be worked by their agency, however humble their powers may appear to man. And a conviction of this will be forced upon any one who will condescend to examine the good services these despised creatures render mankind.





M	D	W	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	Sun.		Moon.				High Water at London Bridge.				Equation of Time.		Day of the Year
				Rises—R.	Declina- tion—S.	Rises—R.	Sets—S.	Souths.	Age	Morning	Afternoon	Morning	Afternoon	Subtract.		
				H. M.	°	H. M.	H. M.	H. M.	D.		M. M.	H. M.	M. M.	H. M.	M. M.	
1	F		<i>St. Philip &amp; St. James</i> —Philip was born at Beth-	4 35 <sup>R</sup>	15 3					6	5 27	5 47	3 2			121
2	S		saida. James the less, called also James the Just, was the son of Joseph,	7 23 <sup>S</sup>	15 21			0 28 <sup>S</sup>	5 38	7	6 9	6 32	3 9			122
3	S		the carpenter, by a former wife, prior to his espousal with the Virgin Mary	4 31 <sup>R</sup>	15 39			0 57 <sup>S</sup>	6 22	D	6 55	7 21	3 16			123
4	M		<b>3RD SUNDAY AFTER EASTER</b>	7 26 <sup>S</sup>	15 56			1 24 <sup>S</sup>	7 5	9	7 52	8 27	3 22			124
5	Tu		Jupiter sets at 8h. 3m. P.M.	4 28 <sup>R</sup>	16 13			1 46 <sup>S</sup>	7 48	10	9 4	9 40	3 28			125
6	W		<i>St. John</i> —Called the Evangelist from bringing	7 29 <sup>S</sup>	16 30			2 9 <sup>S</sup>	8 32	11	10 15	10 48	3 33			126
7	Th		glad tidings. St. John lived to the age of ninety, and died in the reign of	4 24 <sup>R</sup>	16 47			2 31 <sup>S</sup>	9 16	12	11 18	11 48	3 38			127
8	F		Trajan—Hamburg nearly destroyed by Fire, 3,000 houses burnt, 1842	7 32 <sup>S</sup>	17 4			2 54 <sup>S</sup>	10 3	13		0 12	3 42			128
9	S		Earthquake in St. Domingo, 1842, 10,000 lives lost	4 21 <sup>R</sup>	17 20			3 21 <sup>S</sup>	10 52	14	0 34	0 55	3 46			129
10	S		Accident on Paris and Versailles Railway, 1842	7 35 <sup>S</sup>	17 36			3 51 <sup>S</sup>	11 44	15	1 14	1 35	3 49			130
11	M		Battle of Lodi, 1796	4 17 <sup>R</sup>	17 51			4 23 <sup>S</sup>	Morning.	○	1 55	2 13	3 51			131
12	Tu		<b>4TH SUNDAY AFTER EASTER</b>	7 38 <sup>S</sup>	18 6			Afternoon.	0 39	17	2 34	2 53	3 53			132
13	W		Mars sets at 11h. 8m. P.M.	4 14 <sup>R</sup>	18 21			10 13 <sup>R</sup>	1 36	18	3 11	3 32	3 54			133
14	Th		Grand Fancy Ball given by Queen Victoria, 1842	7 41 <sup>S</sup>	18 36			11 2 <sup>R</sup>	2 35	19	3 52	4 13	3 55			134
15	F		Old May Day—Henri Quatre Assassinated, 1610	4 11 <sup>R</sup>	18 51			11 45 <sup>R</sup>	3 33	20	4 34	4 57	3 55			135
16	S		The "ILLUSTRATED LONDON NEWS" first pub-	7 44 <sup>S</sup>	19 5			Morning.	4 30	21	5 22	5 45	3 55			136
17	S		lished, 1842—In a lecture on architecture, delivered at Liverpool, by Mr. G.	4 8 <sup>R</sup>	19 18			0 21 <sup>R</sup>	5 25	22	6 14	6 44	3 54			137
18	S		Godwin, F.R.S., he remarked, that little was known of the private dwellings of	7 47 <sup>S</sup>	19 31			0 51 <sup>R</sup>	6 18	23	7 14	7 47	3 52			138
19	Tu		ancient Greece, and said, an <i>Illustrated London News</i> of that period, or	4 5 <sup>R</sup>	19 45			1 18 <sup>R</sup>	7 8	24	8 23	9 1	3 50			139
20	W		rather "Athenian News," would be exceedingly valuable	7 49 <sup>S</sup>	19 58			1 41 <sup>R</sup>	7 59	25	9 36	10 9	3 47			140
21	Th		<b>ROGATION SUNDAY</b> —The fifth Sunday after	4 3 <sup>R</sup>	20 10			2 8 <sup>R</sup>	8 49	26	10 45	11 18	3 44			141
22	F		Easter-day; and the Sunday before Holy Thursday, or the Ascension of	7 52 <sup>S</sup>	20 22			2 36 <sup>R</sup>	9 40	27	11 46		3 40			142
23	S		Jesus Christ	4 0 <sup>R</sup>	20 34			3 8 <sup>R</sup>	10 31	28	0 16	0 42	3 35			143
24	S		<i>St. Dunstan</i> —Successively Bishop of Worcester,	7 55 <sup>S</sup>	20 45			3 41 <sup>R</sup>	11 22	29	1 6	1 33	3 30			144
25	M		London, and Canterbury; and what was, perhaps, very valuable in his day,	3 58 <sup>R</sup>	20 56			4 14 <sup>R</sup>	Afternoon.	●	1 55	2 17	3 25			145
26	Tu		an excellent blacksmith	7 58 <sup>S</sup>	21 7			Afternoon.	1 5	1	2 36	2 57	3 19			146
27	W		<b>Ascension Day—Holy Thursday</b> —The Thursday	3 56 <sup>R</sup>	21 17			9 49 <sup>S</sup>	1 56	2	3 17	3 35	3 12			147
28	Th		in Rogation week; being the day on which our Saviour's ascension is com-	8 0 <sup>S</sup>	21 27			10 28 <sup>S</sup>	2 45	3	3 53	4 10	3 5			148
29	F		memorated. At the Reformation processions on this day were abolished	3 54 <sup>R</sup>	21 36			10 59 <sup>S</sup>	3 31	4	4 29	4 48	2 58			149
30	S		Francis shot at Queen Victoria, 1842	8 2 <sup>S</sup>	21 46			11 26 <sup>S</sup>	4 17	5	5 5	5 24	2 50			150
31	S		<b>SUN. AFT. ASCENSION</b> —Birth of Queen Victoria	3 52 <sup>R</sup>	21 54			11 50 <sup>S</sup>	5 0	6	5 44	6 5	2 42			151
			Mercury rises at 3h. 18m. A.M.													
			<i>St. Augustin</i> —Commissioned by Pope Gregory to													
			convert the Saxons. Created Archbishop of Canterbury in the year 596;													
			died, 610													
			Jupiter rises at 3h. 33m. A.M.													
			Restoration of King Charles II.													
			Pitt born, 1759—Pope died, 1744													
			<b>PENTECOST, OR WHIT SUNDAY</b>													

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee) from the Earth, in each Lunation.	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
First Quarter 5d. 11h. 52m. A.M.	1	1h. 27m.	7° 25'	23h. 42m.	2° 6'S	5h. 32m.	24° 29'	3h. 13m.	17° 6'	22h. 8m.	12° 51'	0h. 45m.	4° 7'
Full Moon 11 6 "	6	1 31	6 43	0 0	0 46S	5 46	24 37	3 18	17 25	22 9	12 45	0 46	4 13
Third Quarter 18 1 27 P.M.	11	1 40	7 2	0 18	0 42N	6 0	24 40	3 22	17 44	22 10	12 41	0 47	4 19
New Moon 25 4 44 A.M.	16	1 55	8 14	0 36	2 18N	6 14	24 38	3 27	18 2	22 11	12 37	0 48	4 24
Apogee 3 8 "	21	2 15	10 8	0 55	3 59N	6 28	24 31	3 32	18 19	22 12	12 34	0 49	4 29
Perigee 15 7 "													
Apogee 31 3 "	26	2 40	12 33	1 15	5 44N	6 42	24 20	3 37	18 36	22 13	12 32	0 49	4 34



# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## MAY.

The planet Venus always appears in that quarter of the Heavens which the Sun has just deserted, or where he is just about to appear; she is, nevertheless, one of the brightest and the most beautiful of all the objects in the Heavens—indeed, she ranks next in splendour to the Moon herself. A slight attention to her position relatively to the fixed Stars, continued for a few days, suffices to show that she changes her place with considerable rapidity. If we observe her in the evening we shall soon find that her greatest angular distance from the Sun, or her elongation, never exceeds 47°deg., being at this time from 3 to 4 hours visible in the evening after him, and in this case she is called the Evening Star; the time which she continues above the horizon after sun-set gradually diminishes, till at last she sets at the same time as the Sun. A few days after this time she will rise a little before the Sun in the East, and is called the Morning Star; at first by only a few minutes, but every succeeding morning somewhat earlier, till her angular distance from the Sun is about 46°, and at this time she rises from 3 to 4 hours before the Sun. This distance then becomes less till she appears so near the Sun as to be again lost in his rays. A few days after this she again re-appears as an evening Star, so that in no case can the Planet be seen at midnight. When she is E. of the Sun, after having been for some time visible in the evening, she begins to approach the Sun, and she appears through the telescope as a fine luminous crescent, the horns of which are turned towards the East, and which becomes narrower, and longer, as her angular distance from the Sun diminishes; at the time that she and the Sun are in, above, or below, the imaginary straight line joining the Sun and the Earth, or at about the time they set together, she is at her inferior conjunction with the Sun, and her apparent diameter is the largest; when she rises a little before the Sun the horns of her crescent are turned towards the West; she then exhibits successively Moon-like phases, passing to the half-circle, and to that form, greater than a half-circle, called gibbous; when about to present a small full orb, she is lost in the Sun's rays. These different appearances are represented in the accompanying engraving:



The first appearance on the left hand is that at the time of her greatest brilliancy on January 26th; the next is that a few days before March 2d, at which time she is in inferior conjunction with the Sun, and invisible to us as we are looking at her un-illuminated side, and the third position is that a few days after March 2; on April 7th she has the appearance represented at the fourth from the left hand, being exactly the same as that at the first position, except that the horns are turned the contrary way, and she is a second time at her greatest brilliancy. On the 11th day of the present month she will have the appearance as represented at the extreme right position but one, being then at her greatest angular distance from the Sun West; and, on December 13th, she will be a full round small orb as represented at the extreme right. At every intermediate time between these times she will be of an intermediate form. The several appearances above are laid down on the same scale. During these changes it is evident that there are remarkable alterations of the Planet's diameter and brilliancy, and it is plain that she is not at her greatest brilliancy when most of her illuminated disc is seen; in fact her brightness, as seen from the Earth, depends

on two causes; first upon her distance from the Earth; and secondly upon the greater or less magnitude of that portion of her enlightened hemisphere which is turned towards the Earth. These causes tend to render her brightest twice in each revolution, at times, when her elongation is about 40°, and at these times she is visible to the naked eye at broad daylight, and when the Sun is below the horizon, she occasions a sensible shadow. At her greatest elongation, she appears stationary with respect to the Sun for some time, and at certain other times she appears stationary with respect to the fixed stars. The times at which these several phenomena occur, are mentioned under the head of the Astronomical occurrences in each month.

It is stated that spots have at times been seen on the Planet's face, and such were seen at Rome, in 1840 and 1841, by Francesco de Vico, Director of the Observatory at Rome, and from observations on them he deduced the time of rotation on her axis to be 23h. 21m. 22s. When Venus is in the straight line joining the centre of the Sun and the Earth, she is seen to pass over the Sun; and such a phenomenon can be seen from many parts of the Earth, depending on the distance that Venus is from the Earth and from the Sun, and it serves to determine these distances, and upon this our knowledge of the distances of the whole solar system depends. It is unfortunate that so useful a phenomenon should occur so seldom. The last was in 1769, from which the distance of the Sun from the Earth was satisfactorily obtained. There will not be another till 1874, and which will not be visible in England; there will be one which will be visible in England, in 1882,\* on December 8, and the next will be in 2004.

The planets are all solid spherical bodies, therefore that hemisphere, or half only, which is turned towards the Sun, can be illuminated at one time; and only one hemisphere can be turned towards the Earth at one time, and therefore seen from the Earth.

If the half on which we look, coincided always with the half illuminated by the Sun, it is plain that the whole illuminated hemisphere would be seen, and if it does not, then it is equally plain only a part of it would be visible at such times; the latter is evidently the case with Venus, as indeed it is with every planet, but there is a marked difference in their appearances, depending on their distances from the Sun, being greater or less than that of the Earth from the Sun.

Those Planets whose distance from the Sun is greater than that of the Earth, are called Superior Planets, and those whose distance is less, are called Inferior Planets; the orbits of the former, or the lines described by their revolution round the Sun, are all greater, and the orbits of the latter are all less than the orbit of the Earth; and consequently, in the case of the Superior Planets, the greater portion of their enlightened sides will be always turned towards us; and in the case of the Inferior Planets sometimes the whole of their unenlightened discs, and sometimes the whole of their enlightened hemispheres are turned towards us—their discs passing in the intermediate period through all those varieties of appearance represented above. Hence the orbit of Venus, from this cause, and also from the circumstance of the Planet being seen at times to pass across the Sun's disc, must be within that of the Earth, and, therefore, her distance from the Sun must be less than the Earth's distance from the Sun; in fact, her distance is about sixty-eight millions of miles, whilst that of the Earth is ninety-five millions of miles.

Venus shines with a brilliant white colour, and in some situations it is so powerful as to cause a sensible shadow. Her diameter is about 7700 miles. The Sun, as viewed from Venus, must appear nearly twice as large as he does to us, and, therefore, the proportion of light and heat which she receives from the Sun, is nearly double that received on the Earth.

At the beginning of the month, Mercury is exactly midway between  $\gamma$  Pegasi and  $\alpha$  Ceti; and at this time the Planet moves slowly. On the 15th day he is about 13 degrees South of  $\alpha$  Arietis, and at the end of the month he is between  $\alpha$  Ceti and the Pleiades, at about 8 degrees from the latter, and he now rapidly changes his place.

Venus will be readily distinguished by her exceeding brightness; on the first day she rises in the E. at 3h. 7m. A.M., and on the last day she rises in the E.N.E. at 2h. 16m. A.M.

\* It was inadvertently stated in the Almanack of last year, that there would not be one between 1874 and 2004.

## ASTRONOMICAL OCCURRENCES IN MAY.

PLANETS.				OCULTATION OF STARS BY THE MOON.		
Names	Time of passing the Meridian or Southing, on the 15th day	When near the Moon	Angular Distance from the Moon, North or South	Names of the Stars	Times of disappearance and re-appearance of the Star	At the dark or bright limb of the Moon
Mercury - - -	H. M. 10 20 A.M.	D. H.	DEG.	C Sextantes }	D. H. M. 4 9 41 P.M. 4 10 53 "	Dark Bright
Venus - - -	9 1 A.M.	21 2	4 South	58 Virginis }	8 10 33 P.M. 8 11 7 "	Dark Bright
Mars - - -	2 40 P.M.	28 5 A.M.	6 North	$\beta^1$ Scorpi }	12 0 24 A.M. 12 1 18 "	Bright Dark
Jupiter - - -	11 55 A.M.	24 2 P.M.	1 North			
Saturn - - -	6 41 A.M.					
Uranus - - -	9 17 A.M.	21 11 A.M.	3 South			

May 5th, 7 a.m., Mercury the farthest from the Sun.

May 11th, 4 p.m., Venus' elongation the greatest W. 46 deg.—(See above.)

May 17th, 1 a.m., Mercury at the greatest W. elongation, being 25 deg. W.—(See September.)

Jupiter's Satellites are not visible during this month, Jupiter being too near to the Sun.





## MAY.

Then cometh May, gallant and gay,  
When frequent flowers do thrive,  
The child is then become a man,  
Of age twenty and five.  
And for his life doth seek a wife,  
His days and years to spend;  
May life above send peace and love,  
And grace unto the end.

OLD POEM; 1653.

## THE YOUNG MAN ABROAD—TO "OBSERVE THE RIGHTS OF MAY."

MAY is, throughout, a month of out-door rejoicing; and, as its festivities are inspired by the gay face of Nature, they are as old as any we have on record. Mr. Borlase says: "May customs are nothing more than a gratulation of the Spring, to testify universal joy at the revival of vegetation." And, Mr. Douce remarks: "there can be no doubt that the Queen of May is the legitimate representative of the Goddess Flora, in the Roman festival." In Scotland, on May-day, is held a rural sacrifice called the Baltein, or Fire of Baal—the only word in Gaelic for a globe; this festival being, probably, in honour of the return of the Sun, in his apparent annual course:—

All hail to thee, thou first of May,  
Sacred to wonted sport and play,  
To wine and jest, and dance, and song,  
And mirth that lasts the whole day long.

In the days of "Merry England," all ranks of people—royal and noble, as well as the vulgar—went out *Maying*, i.e. gathering May, on the first of May: who does not remember Herrick's lyric "To Corinna, to go a Maying." The universality of the custom—the multitudes roaming in the fields on May morning, and the towns and villages subsequently bedecked with evergreens, are thus told:—

Come, my Corinna, come; and, coming, mark  
How each field turns a street, each street a park,  
Made green, and trimm'd with trees; see how  
Devotion gives each house a bough,  
Or branch, each porch, each door, ere this,  
An ark, a tabernacle is,  
Made up of whitethorn neatly interwove:  
As if here were those cooler shades of Iove.

Our artist has picturesquely illustrated the "rites of May"—where the youthful swain is adorning the brow of his fair companion with a garland of flowers, and is about to lead her forth to the sports of the Morris-dance and May-pole, where too are Robin Hood, Friar Tuck, and Maid Marian, from the rustic chivalry of ages long past: the Morris-dance originated from the Moors, (*Morisco*); and the Marian, perhaps, from Morion, a head-piece, because the head was gaily dressed.

Nor was this merely a rustic sport, for it was equally enjoyed by those "in populous city pent." In "jolly old London," on May-day, the doors were decorated with flowering branches, and every hat was decked with hawthorn, brought in triumph from the neighbouring fields. Then, May-poles were set up in various parts of London: Chaucer mentions the pole or *shaft*, in Leadenhall-street, higher than the steeple of the church of St. Andrew-under-shaft. Beaumont and Fletcher allude to the May-pole nearly on the site of the church of St. Mary-le-Strand; and its successor, when removed, was used for a telescope-stand in Essex; it had two gilt balls and a vane, on the summit, and was decorated on festival-days, with garlands of flowers. Another pole must have been set up in May Fair, just upon the verge of Hyde Park. The Puritans fought a stubborn battle with the May-poles—as "heathenish vanities of superstition and wickedness:—"

Alas! poor May-poles! what should be the cause  
That you were almost banished from the earth?  
Who never were rebellious to the laws:  
Your greatest crime was honest, harmless mirth.

At the Restoration, May-poles were permitted to be erected again; though few held up their heads after the *coup d'état*. They were condemned as pagan; but, on the observance of May Day, there could scarcely be any difference of opinion. Even the grave old Chronicler Stowe, talks of rejoicing the spirits with the beauty and savour of sweet flowers, and with the notes of birds—*praising God in their kind*.

May has, indeed, been a "feast of the poets." Who does not remember Milton's glorious invocation to "flowery May," and "bounteous May," Then, too, the festive muse of Moore:

Of all the fair months that round 'the Sun  
In light-linked dance their circle run,  
Sweet May! sweet May! thou'rt dear to me.

Even, the gentle Gray is roused to sing "We frolic while 'tis May." Yet, those who can "suck melancholy from a song" may find it in this month, and its frail flowers. Ben Jonson, in his exquisite ode "To the Memory of a Youth," after the long-standing oak, says:—

A little of a day  
Is four farre in May,  
Although it fall and die that night:—  
It was the plant and flower of light.

Among the superstitions of the month, it was a bad omen to be married in it—a notion as old as Ovid. On Old May Day, 1610, Henry IV. was assassinated by Ravallac—a tragedy of such eventful consequences, that it must have added to the fatalities of the month.

*Holy Thursday* (Ascension Day), is still set apart for parochial perambulations, and beating bounds—a custom traceable to the pagan Terminis (Lat. bound), who was the guardian of fields and landmarks, and the keeper-up of friendship and peace among men; the procession was formerly headed by the Bishop or Clergy, who sang Litanies in the fields, &c. A Homily was formerly set forth, for this day; for which, also, the Injunctions of Queen Elizabeth, in 1559, declared that a proper service should be provided.

*Restoration Day* observances are now but rare; though, formerly, the statues of Charles I. and II. were dressed with oak-branches, as was the tomb of the preserver of Charles II., at St. Giles's church, London. At Newcastle, it is called "Barge Day," there being on the Tyne a Corporation procession, similar to that on the Thames, on Lord Mayor's Day.

*Whit Sunday*, or Pentecost, or *Whiten-Sunday*, was named from its being one of the stated times for baptism in the ancient church, when those that were baptised put on *white* garments, as types of that spiritual purity which they had received. In Catholic countries, the priests, on this day, cast flowers from the upper ambulatories of their churches, upon the congregation of the faithful assembled in the nave below.



MAY.

THE arrivals of birds this month are but few; we may expect the fly catcher and the sedge warbler, and the females of the previous arrivals; the females usually appearing a week or more later than the males. During the month the blackcap, willow wren, and generally the Summer warblers, will be in full song during the day, and the nightingale at night. Most birds are busy in nest building or in hatching.

The *Spotted Fly Catcher* is in length nearly five inches and three quarters; bill dmsky, the base of it whitish, and beset with short bristles; head and back light brown; wings dusky, edged with white; the breast and belly white; the throat, and sides under the wings, tinged with red; tail dusky; legs black.

The *Sedge Warbler* is about five inches and a half in length, and it can be distinguished, by a white streak extending from the gape towards the eye, but before it reaches that organ dividing itself into two, so that the eye is between the two divisions. This is always seen in the species, and it is a ready means of distinction.

Insects, during this month, become very numerous; moths and butterflies are very abundant; glow-worms shine; bees swarm, dragon flies; and beetles appear, &c.



THE DRAGON FLY—LIBELLULA VIRGO.

Dragon flies, or those insects which are commonly called horse-stingers (but why such a name should be applied we know not, as they are perfectly harmless), appear in this month; and, from their elegant forms, beautiful colours, the elegance and delicacy of their wings, which are as transparent as gauze, often ornamented with coloured spots, exhibiting, when viewed, at different inclinations of the sun's rays, all the tints of the rainbow, always attract a good deal of attention. Indeed, nothing can be more beautiful than to watch these brilliant insects, darting backwards and forwards in a continual flight after flies, moths, butterflies, and insects. Their mouth is capable of much distension; and, from their great activity, an insect when observed has but little chance of escape; they, in their turn, are devoured by birds.

There are many species of dragon flies; but, in a popular work of this kind, we have only room to mention a few. The most remarkable is that called *Libellula Varia*; it may be seen about the decline of Summer, and is of singular beauty; its length is three inches; the wings, when expanded, are four inches from tip to tip; they are varied with yellow and brown, the tip with a white spot terminated by a black one. The head is very large; neck slender; the eyes occupy by far the greater part of the head, and they are of a blue-grey with a varying lustre. The front is greenish yellow; the body is long, slender, and black, with rich variations of bright blue and grass green. The wings are perfectly transparent, and vary in appearance according to the inflections of light. This insect during the middle of the day is extremely rapid in its motions, darting off on the slightest alarm from the spot on which it had settled. During the early hours of the morning and late in the evening, it is easily taken: at such times it sits with its wings spread, and it will suffer itself to be readily seized by them.

*Libellula Grandis* is the largest found in Britain, and is not inferior in bulk to any insect which this country produces. The fore-part of the head is yellow, eyes brown and large; abdomen reddish, often spotted with white and black upon the top and bottom; wings more or less of a yellow complexion, and distinguished by a brown spot on the outer edges. The colours of this insect vanish when dead.

*Libellula Virgo*—(See the engraving above). This is one of the most elegant of the European insects. Its body is slender, long and cylindrical, which, as well as the head, is usually either of a bright but deep golden-green, or of a deep glided blue; wings transparent at the base and tips, but are each marked in the middle by a very large oval patch of dark violet blue; this insect is common about waters.

*Libellula Puella*. A small but elegant species, wings colourless but transparent, and each marked near the tip with a small oblong, black spot. From the brilliancy and richness of its colours, it has been called the King's fisher. There are of this, as well as of the preceding one, different varieties according to the difference of spots and colours; but it is generally of a bright and beautiful sky blue, variegated with black bars on the joints. The eyes are round, protuberant, and placed on each side of the head at a distance from one another.

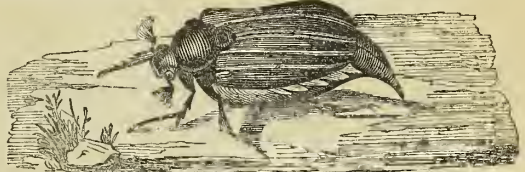
The addresses of the male of these species to the female seem carried on in a rough manner. He hovers about on the wing till the object of his amours makes her appearance; he then watches an opportunity of seizing her by the neck, with those pincers with which his tail is armed. In this way he flies through the air, till the female, yielding either to inclination or necessity, forms her body into a circle, adapted to the purpose of nature; consequently, two of these insects are frequently seen coupled in the air, exhibiting the form of a ring. The female, at a proper period, retires to some stagnant water, and deposits the eggs, which are of a white

colour, resembling those produced by the common blow fly. The larvæ are soon hatched, and the insect retains its aquatic habits nearly a year before it attains its full size; at which time the winged insect appears. Its life in this state is short in comparison with that which it passed in its aquatic form, the frosts of



THE DRAGON FLY—LIBELLULA PUELLA.

Autumn destroying all those that have not been devoured by birds. Many persons would scarcely believe that these brilliant insects, flying with such rapidity in the pursuit of other insects, had been inhabitants of the water for a year. And it is impossible not to be struck with wonder in contemplating their changes, for while living in the water, they would perish by a long exposure to the air; in their winged state, they would be destroyed by submersion under the water—an instance not less striking than that of the butterfly in point of form, which exhibiting one and the same animal appears in different periods of its existence.



THE COCKCHAFER.

This insect is very abundant in our island, and it has a variety of names; for instance, as the brown tree beetle, blind beetle, May bug, chaffer, May bob, or oak web, jack hornor, geffry cock, acre bob, &c., as it is variously termed in different parts of the country.

Its colour is brown; thorax hairy; tail inflected; a triangular white spot at each incisure of the abdomen. The larvæ is soft and gray, with the head and legs protected by a shelly covering of a yellow, brown colour. While in the larvæ state, which continues for a space of two or three years, it devours the roots of corn, grass, and other vegetables. They are much sought after by crows, rooks, and other birds, as well as animals. It is the larvæ of this insect that is so frequently turned up by ploughing, and in quest of which crows are often seen following the tracks of the plough-share. Children are also employed to follow the plough and collect the white worms, as they are called.

The eggs are laid in small detached heaps beneath the surface of some clod; and the young, when first hatched, are scarcely more than one eighth of an inch in length, gradually increasing in their growth, occasionally changing their skins, until they are of the size of two inches or more. At this time they descend to the depth of two feet, where they construct an oval cell, very smooth in the inside; and, after a certain time, divest themselves of their last skin, and appear in the chrysalis form; in which they continue till the succeeding Spring, when they assume the perfect beetle; but remain for a considerable time in a weak state, not venturing out till the fine days of May or the beginning of June; at which time the beetle emerges from its retirement and commits its depredations on the leaves of trees &c.; breeds and deposits its eggs: after which its life is short. It is eagerly sought after by swine, bats, crows, and many kinds of birds.

We cannot conclude this account without expressing a hope that when it is advisable to destroy these insects, that means should be adopted to do it in the quickest possible way; and that children should be checked from the very cruel practice of running a pin through the curious pointed extremity of its body, round which the beetle whirls in its endeavours to escape from the torture inflicted upon it.

The vegetable world is in a very active state; during the month, the following plants will be in flower:—Common privet in thickets; speedwell, in pastures; common butter-wort in moist heaths; holly tree in hedges; cream-coloured violet on heaths; heartsease in corn-fields; honeysuckle in thickets; buck-thorn in hedges; lesser periwinkle in thickets; greater periwinkle in moist places; narcissus in sandy pastures; hare-bell in thickets; lily of the valley on shady hills; common lily of the valley in thickets; barberry in hedges; cultivated cherry-tree, apple, bramble, pheasant's eye, crowfoot, butter-cup, candy-tuft; bryony, Scotch fir-tree, willow &c., &c.





M D	W D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	Sun.		Moon.		High Water at London Bridge.		Equation of Time.	Day of the Year
			Rises—H. Sets—S.	Declina- tion North	Rises—H. Sets—S.	Souths.	Morning.	Afternoon		
1	M	Whit Monday.— <i>Nicomede</i> —He was a pupil of	3 51 <sup>R</sup>	22 3	Morning.	Afternoon	7 6 26	6 50	2 33	152
2	Tu	St. Peter, and was discovered to be a Christian by his burying Felicitas, a martyr. He was beaten to death with leaden plummets on account of his religion, in the reign of Domitian—Oxford Trinity Term begins.	8 5 <sup>S</sup>	22 11	0 13 <sup>S</sup>	6 25	7 12	7 39	2 24	153
3	W		3 50 <sup>R</sup>	22 18	0 34 <sup>S</sup>	7 9	8 8	8 42	2 14	154
4	Th	Saturn rises at 0h. 25m. A.M. in S.E.	8 7 <sup>S</sup>	22 26	0 57 <sup>S</sup>	7 54	10 15	9 46	2 5	155
5	F	<i>Boniface</i> .—In 745 St. Boniface was created Bishop	3 49 <sup>R</sup>	22 33	1 21 <sup>S</sup>	8 41	10 16	10 46	1 55	156
6	S	of Mainz. He was a Saxon Presbyter, born in England, and at first called Winefrid; he was a friend and minister of the Venerable Bede.	8 9 <sup>S</sup>	22 39	1 47 <sup>S</sup>	9 31	11 16	11 48	1 44	157
7	S	TRINITY SUNDAY is the festival of the Christian	3 47 <sup>R</sup>	22 45	2 20 <sup>S</sup>	10 25		0 12	1 33	158
8	M	Church, observed on the Sunday next after Whit-Sunday, in honour of the Holy Trinity. The observation of this festival was first enjoined in the Council of Arles, A.D. 1260.	8 11 <sup>S</sup>	22 51	2 58 <sup>S</sup>	11 22	0 38	1 0	1 22	159
9	Tu		3 46 <sup>R</sup>	22 56	3 18 <sup>S</sup>	Morning.	0 1 25	1 47	1 11	160
10	W	Oxford shot at the Queen, 1840	8 12 <sup>S</sup>	23 1	Afternoon.	0 21	2 11	2 34	0 59	161
11	Th	<i>Corpus Christi</i> —A festival of the Romish Church,	3 45 <sup>R</sup>	23 5	9 42 <sup>R</sup>	1 21	2 57	3 18	0 48	162
12	F	held on the Thursday after Trinity Sunday. It celebrates, as the name indicates, the doctrine of the transubstantiation; and is observed in Catholic countries with considerable ceremony.— <i>St. Barnabas</i> .	8 14 <sup>S</sup>	23 9	10 22 <sup>R</sup>	2 20	3 40	4 3	0 36	163
13	S		3 45 <sup>R</sup>	23 13	10 53 <sup>R</sup>	3 18	4 25	4 50	0 23	164
14	S	1st SUNDAY AFTER TRINITY	8 16 <sup>S</sup>	23 16	11 23 <sup>R</sup>	4 13	5 15	5 41	0 11	165
15	M	Magna Charta signed, 1215	3 44 <sup>R</sup>	23 19	11 48 <sup>R</sup>	5 6	6 5	6 33	Add.	166
16	Tu	Duke of Marlborough died, 1722, aged 72	8 16 <sup>S</sup>	23 22	Morning.	5 57	7 0	7 30	0 14	167
17	W	Cobbett died, 1835, aged 73	3 44 <sup>R</sup>	23 24	0 15 <sup>R</sup>	6 47	8 1	8 34	0 27	168
18	Th	Battle of Waterloo, 1815. Cost £13,000,000	8 17 <sup>S</sup>	23 25	0 41 <sup>R</sup>	7 37	9 8	9 41	0 40	169
19	F	Sir Joseph Banks died, 1820	3 44 <sup>R</sup>	23 26	1 11 <sup>R</sup>	8 27	10 13	10 49	0 53	170
20	S	Accession of Queen Victoria, 1837	8 18 <sup>S</sup>	23 27	1 42 <sup>R</sup>	9 17	11 22	11 53	1 6	171
21	S	2ND SUNDAY AFTER TRINITY—Longest day	3 44 <sup>R</sup>	23 27	2 19 <sup>R</sup>	10 8		0 23	1 19	172
22	M	Battle of Vittoria, 1813	8 19 <sup>S</sup>	23 27	3 1 <sup>R</sup>	10 59	0 48	1 13	1 32	173
23	Tu	Akenside died, 1770	3 45 <sup>R</sup>	23 27	3 45 <sup>R</sup>	11 50	1 38	1 58	1 45	174
24	W	<i>St. John Baptist</i> —Midsummer day	8 19 <sup>S</sup>	23 26	Afternoon.	Afternoon	1 2 21	2 42	1 58	175
25	Th	No real night till the middle of July	3 46 <sup>R</sup>	23 25	9 0 <sup>S</sup>	1 26	2 3	2 19	2 11	176
26	F	George IV. died, 1830	8 18 <sup>S</sup>	23 23	9 29 <sup>S</sup>	2 12	3 36	3 55	2 24	177
27	S	Saturn rises at 10h. 54m. P.M. in S.E.	3 46 <sup>R</sup>	23 21	9 54 <sup>S</sup>	2 56	4 11	4 29	2 37	178
28	S	3RD SUN. AFTER TRINITY—Queen Vic. cr. 1838	8 18 <sup>S</sup>	23 18	10 17 <sup>S</sup>	3 39	5 4	5 3	2 49	179
29	M	<i>St. Peter</i> —A high festival of the Roman Catholic	3 47 <sup>R</sup>	23 15	10 41 <sup>S</sup>	4 22	6 5	5 39	3 1	180
30	Tu	Church, and a holiday of the Church of England. It is celebrated at Rome with illuminations and magnificent ceremonials.	8 18 <sup>S</sup>	23 12	11 1 <sup>S</sup>	5 4	7 5	5 16	3 13	181

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

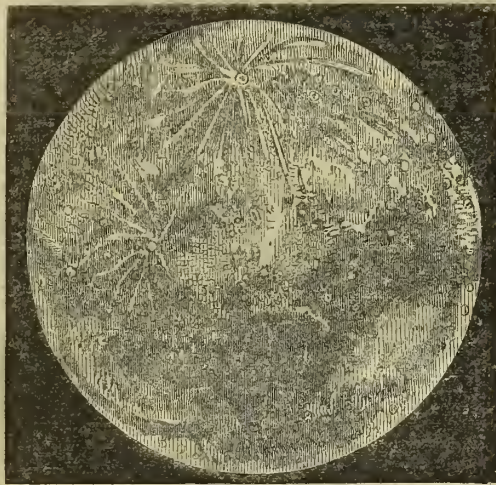
Times of changes of the Moon, and of when she is at her greatest distance (Apogee,) or at her least distance (Perigee,) from the Earth, in each	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
First Quarter	2d. 5h. 30m. A.M.	1	3h. 15m.	15° 53'	1h. 39m.	7° 53'	6h. 58m.	24° 39'	3h. 43m.	18° 56'	22h. 13m.	12° 30'	0h. 50m.
Full Moon	9 3 36 P.M.	6	3 51	18 46	1 59	9 40	7 12	23 39	3 47	19 11	22 13	12 30	0 51
Third Quarter	16 6 38 A.M.	11	4 31	21 28	2 20	11 26	7 26	23 13	3 52	19 26	22 14	12 31	0 51
New Moon	23 5 45 P.M.	16	5 16	23 33	2 42	13 9	7 39	22 44	3 57	19 41	22 13	12 32	0 52
Perigee	13 1 A.M.	21	6 4	24 41	3 4	14 48	7 53	22 10	4 1	19 54	22 13	12 34	0 52
Apogee	27 8 P.M.	26	6 51	24 39	3 26	16 21	8 6	21 32	4 6	20 7	22 13	12 37	0 53



## JUNE.

WHEN the Sun is more than 33 minutes of space below the horizon, no rays of light from him can reach our eyes, but they pass over our head, and illuminate the heavens. This illumination is called twilight, and continues, it is generally supposed, till the Sun is more than 18 degs. below the horizon, now the Sun is never more than 18 degs. below the horizon in England, from May 23rd to July 20th; and, consequently, no absolute darkness takes place between these times. At all other times of the year the Sun sinks more than 18 degs. below the horizon, and the evening twilight ends at that time, and the morning twilight begins when he is at the same distance below the E. horizon. It is doubly useful, since it shortens the night, and prevents at the same time the sudden transition from light to darkness.

Next to the Sun, the Moon is the most remarkable of the heavenly bodies. As seen by the naked eye certain portions of the Moon appear darker than the rest, and viewed through a telescope the whole of her surface is irregularly marked, as represented in the following drawing.



TELESCOPIC APPEARANCE OF THE MOON IN HER MEAN LIBRATION.

Of these marks there are two distinct classes; those which appear precisely the same with respect to forms and intensity of light and shade at all ages of the Moon, and those which are variable in appearance. The former class of marks appears to result from some peculiarity in the surface of the Moon, absorbing, at some parts, a greater or less number of the Sun's rays than at other parts; and they are of different colours; some parts are grey, others of a light green, and there are some streaks of a dark colour.

The latter class appears to consist of hills, mountains, bands of light, valleys, and deep cavities.

That these great inequalities on the surface of the Moon exist, is proved by looking at her through a telescope at any time when she is not full, and the best time to study these interesting appearances, is when the Moon is either horned or gibbous: the edge about the confines of the illuminated part is then jagged and uneven, and the Sun shining on the tops of the hills, before his rays can fall on the intermediate plains, form beautiful islands of light in the dark part of the Moon; these may be seen well about the fourth day after new Moon; as are exhibited in a few cases in the drawing in February. At this time, too, may be perceived other little spaces which join the enlightened surface, but run into the dark part, which gradually change their form, till at last they come wholly within the illuminated part, having no darkness around them at all. Afterwards many more such shining spaces arise by degrees, and appear as before, within the dark side of the Moon, which, before they draw near to the illuminated portion, are invisible, being

in shadow. During the time that the phases are decreasing, the reverse takes place. Those bright spaces which joined the illuminated part recede gradually from it, and remain visible after they are quite separated from the limits of light and darkness. This could not possibly be the case, unless the shining parts were at some distance from the surface of the Moon, so that the Sun can shine on the tops of the mountains, before he can on the plains below.

These appearances render it certain that the surface of the Moon is covered with high mountains, and with masses of unknown matter; but which has the property of reflecting the Sun's light. By means of the shadows of the lunar mountains, their heights have been ascertained; some of which are nearly 18,000 feet high.

Numerous cavities also appear in every part of her surface—some of which are upwards of 3 miles in depth, and from 20 to 30 miles in circumference; in some of these enormous caverns, a single mountain is observed to rise from the centre—(See August). In looking at the Moon the mountains can be distinguished from the valleys, by the shadows of the former being from the Sun, and by those parts of the valleys being in shade which are towards the Sun.

The motion of the Moon is remarkable. In the course of a few hours she sensibly approaches to, or separates herself from, the Stars that are near her; she moves over a space nearly equal to her own diameter in an hour, and completes a whole circuit in about twenty-seven days.

The marks on the Moon present no changes of form, and retain towards each other the same relative situations, and also, with slight variations, to the apparent centre of the Moon. The Moon, therefore, at all times, presents very nearly the same half towards the Earth; and, if this be the case, then the Moon must turn upon her axis in the same time as she takes to revolve round the Earth. The Moon is carried along by the Earth in its revolution round the Sun; and, while the latter takes a year to perform its revolution, the Moon performs thirteen and a half of her revolutions round the Earth. The extent of the Moon's visible hemisphere is not always the same; small segments on the East and West sides alternately appear and disappear; or, in other words, a little more of her disc is seen sometimes on the West side, and sometimes on the East side, than at other times, which variations are called libration in longitude. In our engraving she is represented at her mean libration.

With reference to the Sun, the Moon has a day whose length is nearly fifteen of our days, and a night of the same duration.

With reference to the Earth, one half of the Moon is so placed, that the Earth cannot be seen from her at all; and the other half can see it for half a month at one time.

With reference to the Sun and the Earth conjointly, one half of the Moon has no darkness at all, while the other half has half a month of light, and half a month of darkness, alternately; that which has no darkness at all; being illuminated by the Earth shine during its long night.

Nothing indicative of the presence of water can be seen on the Moon's surface, although the dark spots on her surface were formerly supposed to be water. With a good telescope, elevations and cavities are distinctly visible in them; in fact, she appears to be without water, clouds, or vapour, and, consequently, without sound; her surface appears to consist of desolate wastes. The application of Lord Rosse's magnificent telescope to the Moon, may increase our knowledge on the constitution of her surface.

The following is the position of the Constellations that are rising; on the meridian; and setting on the 1st day at midnight:—

Constellations Rising.	Constellations on the Meridian	Constellations Setting.
A part of Perseus in N.E.	A part of Anriga 15° above N. horizon	Gemini in N.W. by N.
Pisces in N.E. by E.	Camelopardalis 30° above N. horizon	Cancer in N.W.
Pegasus in E.	Draco, between Polaris and Zenith	Leo in W.N.W.
Aquarius in E. by S.	Herculus 60° above S. horizon	Sextans in W.
A part of Capricornus in S.E. by E.	Ophiuchus 50° above S. horizon	Corvus in S.W. by W.
A part of Sagittarius in S.E. by S.	Scorpio 20° above S. horizon	Centaurus in S.W. by S.
		Lupus in S. by W.

## ASTRONOMICAL OCCURRENCES IN JUNE.

## PLANETS.

Names.	Time of passing the Meridian or Southing, on the 15th day.	When near the Moon.	Distance from the Moon North or South.
	H. M.	D. H.	DEG.
Mercury . . .	11 33 A.M.	24 4 A.M.	6 North
Venus . . .	9 4 „	20 4 „	2 South
Mars . . .	2 3 P.M.	25 2 „	6 North
Jupiter . . .	10 22 A.M.	21 8 „	2 North
Saturn . . .	4 41 „	14 6 P.M.	6 South
Uranus . . .	7 19 „	17 6 „	3 South

## OCULTATIONS OF STARS BY THE MOON.

Name of the Star.	Time of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
α Capricorni . }	D. H. M. 14 1 17 A.M. 14 1 52 „	Bright Dark

June 3d. 1h. A.M., Venus at the greatest distance from the Sun.

June 18th. 7h. A.M., Mercury at the least distance from the Sun.

June 20th. 0h. (noon), Mercury in superior conjunction with the Sun—(See September.)

June 21st. 8h. 32m. P.M., Sun enters Cancer; Summer commences.





# JUNE.

Then cometh June, with pleasant tune,  
When fields with flow'rs are clad,  
And Phoebus bright in his height,  
All creatures then are glad.  
Then he appears of thirty years,  
With courage bold and stout;  
His nature so makes him to go,  
Of death he hath no doubt.

OLD POEM; 1553.

THE YEAR AND HIS BRIDE, AS KING AND QUEEN OF THE FEAST OF SHEEPSHEARING, PRESIDING AT THE SPORT OF WRESTLING.

JUNE bears distinct evidence of its pagan nomenclature, from Juno. Our Saxon ancestors named it, more reasonably, *Weyd-Monath*; "because," says Verstegan, "their beasts did then weyd in the meddowes, that is to say, goe to feed there." It was afterwards called *Sere-Monath*, or dry month.

*Whitsuntide*, was formerly kept with many feasts called *Ales*, because much ale was then drunk: thus there were bride-ales, clerk-ales, give-ales, lamb-ales, leet-ales, Midsummer-ales, Scot-ales, and several more. Stool-ball and barley-break were, also, Whitsun sports: in "ancient tymes," too, Whitsun plays were acted: at Chester, they were twenty-five in number, and were performed for above three centuries, annually. The Morris Dance was another Whitsun sport; and Fairs were common, more especially in the neighbourhood of London. Aubrey, in his account of North Wilts, has left us the following account of Whitsun Ales (temp. 1711): "There were no rates for the poor in my grandfather's days; but, for Kingston St. Michael (no small parish) the Church Ale of Whitsuntide did the business. In every parish is (or was) a church-house, to which belonged spits, corks, &c., for dressing provision. Here the housekeepers met and were merry, and gave their charity. The young people were there, too, and had dancing, bowling, shooting at butts, &c.; the ancients sitting gravely by, and looking on."—(See *Britton's Memoir of Aubrey*, 1845.) At this day, Whitsuntide is the usual time for "making rates."

Sir John Suckling, in his "Ballad upon a Wedding," hints at the rustic beauty present at these festivals:—

The maid, and thereby hangs a tale.  
For such a maid no Whitsun ale  
Could ever yet produce.

At Whitsuntide the students of Winchester College break up with the solemn performance of the well-known ode or song of *Dulce Domum*, the celebration of which is invariably attended by the leading clergy and gentry of the town and neighbourhood. Its origin is involved in mystery, as well as the occasion of its composition: tradition ascribes it to a youth in a state of melancholy, wasting his life in fruitless sorrow, at his separation from home and friends.

*Sheepshearing Time* is marked in the Ephemeris of Nature, June 6, as *Tonsura*; though Dyer lays down for it the following tokens:

If verdant Elder spreads  
Her silver flowers, if humble Daisies yield  
To yellow Crowfoot, and luxuriant grass,  
Gay Shearing Time approaches.

Again, of its homely joys:—

At Shearing Time, along the lively vales,  
Rural festivities are often heard:  
Beneath each blooming arbour all is joy  
And lusty merriment: while on the grass  
The mingled youth in gaudy circles sport,  
We think the golden age again return'd,  
And all the fabled Dryades in dance,  
Leering they bound along, with laughing air,

To the shrill pipe, and deep re-murmuring chord  
Of th' ancient harp, or tabor's hollow sound.  
While th' old apart, upon a bank reelin'd,  
Attend the tuneful carol, softly mixt  
With every murmur of the sliding wave,  
And every warble of the feather'd choir;  
Music of Paradise! which still is heard  
When the heart listens.

Wrestling was another sport of Shearing Time, and the usual prize was a ram. Chaucer says of Sir Thopas:—

Of wrestling there was none his pere,  
Where any Ram shulde stande.

But, according to the old poem called "A Lytel Geste of Robyn Hode," prizes of greater value and dignity were sometimes given—a white bull a great courser, with saddle and bridle, a pipe of wine, and a red gold ring.

Wrestling was borrowed from the Olympic games; it was, too, the accomplishment of a hero, in the ages of chivalry. Sir Thomas Parkyns, Bart., the celebrated Wrestler, published a mathematical Treatise on his favourite sport.

*Trinity* and *St. Barnabas* were formerly anciently commemorated with processions, "ghirlands" of flowers, &c. Ray has a proverb:—

Barnaby Bright, Barnaby Bright,  
The longest day and the shortest night;

indicating the almost nightless day of the solstitial season.

*Corpus Christi* is, in Catholic countries, celebrated with music, lights, flowers strewed in the streets; tapestries hung out of the windows; Coventry plays, &c.: and many are the entries in old church-books, of rose-garlands and torches on *Corpus Christi*. In the festivals of this day, too, originated Shrewsbury Show, and similar pageants of trading companies, corporation officers, and religious fraternities. In 1845, there was at Nottingham a splendid procession, on *Corpus Christi* day, at the newly-erected Catholic Church, dedicated to St. Barnabas.

*Midsummer Eve*, the *Vigil of St. John the Baptist's Day*, was formerly welcomed with bonfires, supposed to be a relic of Druidical superstition. Gathering roses, and sowing hemp-seed, for love-divinations, were also Midsummer-eve customs.

The Summer-day of the poet is one of unclouded splendour:—

The time so tranquil ye find,  
That nowhere shall ye find,  
Save on a high and barren hill,  
An air of passing wind.  
All trees and simples, great and small,  
That balmy leaf do hear,

Than they were painted on a wall,  
No more they move or stir.  
The rivers fresh, the caller streams  
O'er rocks can swiftly run,  
The water clear like crystal beams,  
And makes a pleasant din.

ALEXANDER HUMPH.

In all the floral festivities of this period, the rose is distinguished:—

The blushing rose, within whose virgin leaves,  
The wanton wind to sport himself presumes,  
Whilst from their rifled wardrobe he receives,  
For his wings purple, for his breath perfumes.

—FANSHAWE.

Herrick has left us this lyric calendar of festal "Country Life," which may not inappropriately be quoted here:—

For sports, for pageantry, and plays,  
Thou hast thy eyes and holidays  
On which the young men and maids meet,  
To exercise their dancing feet;  
Tripping the comely country round,  
With daisies and daisies crown'd.  
Thy wakes, thy quintels, here thou hast;  
Thy May-poles, too, with garlands  
grac'd;

Thy Morris-dance, thy Whitsun ale,  
Thy Shearing Feast, which never fail;  
Thy harvest-home, thy wassail bowl,  
That's toot up after fox & th' hole;  
Thy mummeries, thy twelfth night kings  
And queens, thy Christmas revellings;  
Thy nut-brown mirth, thy russet-wit,  
And no man pays too dear for it.

L. T.



## JUNE.

The songs of the birds continue; the skylark may frequently be heard soon after two o'clock in the morning; young birds are now in abundance, and the old ones are much engaged attending to them. Rooks desert their rookery with their young ones. The swallow tribe are very active, and the call of the quail is heard.



BOMBYX POTATORIA—MOTH.

Insects abound everywhere, and they are too abundant even to enumerate; the stag-beetle during this month flies on fine evenings. Grasshoppers appear; young frogs migrate. Butterflies and moths are innumerable; for an account of the former (see *next month*). We shall at once proceed with that of one species of the latter.

The distinguishing characteristics of moths are sharp-pointed horns, which in many species are simple, and in many are beautifully feathered along the sides. This genus, like that of the butterfly, is so exceedingly numerous, that we have room only to speak of one fully. The one we have chosen is designated *Bombyx*. The insects of this tribe fly only in the evening. During the day they lie under the leaves, or beneath the branches, or in the clefts of trees; towards evening they crawl about, then flutter their wings, and become active as the evening advances; finally they start from the trees, and continue flying about till it is quite dark. The males are commonly the first on the wing in search of the females, which in some few species are without wings, in which case they wait upon the trees or herbage for the arrival of the male. They are all produced from caterpillars; these are of a long cylindrical form, having in some few species a smooth skin; sometimes the skin is covered with a fine silky down or hairs, and some of the larger kinds are covered with spines or bristles.

All the larvæ subsist on vegetables. Their jaws are strong and of a horny texture; and below there is a small opening through which the creature draws a silky thread, which is of considerable use to it, for when it wishes to descend from one branch of the tree to another, instead of pursuing a circuitous route, by crawling or walking, it need only fasten one end of the thread to any particular spot, and lower itself by its assistance to the place required. In a similar way, when observed by birds or other enemies, it can drop in an instant and elude the enemy, waiting concealed among the leaves till the danger is over, and then remounting to its former spot by aid of its silken thread.

Like other larvæ of the moth tribe, they cast their skins several times. When full grown, and approaching the pupa state, they spin a sort of web, as is well known in the case of the silkworm (*Bombyx mori*) which is of this genus. These moths remain in this state within their cocoon for a certain time, some for only a few days, others a few weeks, and others many months. The same day that the creatures emerge from the pupa state they are in a condition to perpetuate their race; almost immediately after which the male dies; and the females expire soon after they have deposited their eggs in a proper place for the young brood to find subsistence.

The cocoons of some of these species are employed in the East Indies for the manufacture of silk. We now proceed to describe a few of the species, which may be expected to appear this month.

*Bombyx Potatoria*, the engraving of which is above, wings slightly indented, yellow brown, with two white dots, in the upper pair. The caterpillar from which this moth proceeds is tailed, crested, hairy, dark brown, speckled with white.

*Bombyx Vinula*. This is a very elegant insect, without being remarkable for the gaiety of its colours. Its wings are grey, with blackish streaks; the thorax and abdomen grey, spotted with brown, and both are extremely downy; the body is marked with transverse black bars. The caterpillar of this moth is far more brilliant than the moth itself; it is nearly two inches in length, and it is of a beautiful green, with the back of a dull purple; being separated from the green on the sides by a pair of white stripes, which begin from the head, run upwards to the top of the back, and from thence are continued along the sides to the tail; the face is flat, yellowish, surrounded by two borders, the inner one

black, the outer one red; and it is distinguished by two black eyes or spots on each side of the upper part. On the insect being irritated, two long red horns proceed from the tail; the insect seems to use them for the purpose of frightening its disturbers. This creature possesses the power of ejecting from its mouth, to



MOTH: BOMBYX VINULA.

a considerable distance, an acrid reddish fluid, which it uses as a further defence and which produces considerable irritation, if thrown into the eyes of the spectator. This caterpillar may be found on willows and poplars. The chrysalis is thick, short, and black, and, in the month of May or June, gives birth to the moth.

*Bombyx Caja*, or Great Tiger Moth. The upper wings whitish, with irregular blackish spots; lower ones orange, spotted with black. The caterpillar is of a deep brown, with white specks; extremely hairy, and feeds on plants. It changes into a chrysalis in June, and the moth appears in July.

We now proceed briefly to describe a few butterflies visible in this month:—

The Cabbage Butterfly. The wings are rounded, entire, white; tip of the upper pair brown. This is the common white butterfly, known in our gardens; it proceeds from a yellowish caterpillar, freckled with bluish and black spots, and which changes during Autumn into a yellowish grey chrysalis; the butterfly appears early in the Spring, and is seen almost throughout the Summer.



ARION.



ARTAXERXES.

*Arion*. Wings above are blue, edged with brown, and spotted with black beneath grey, with many small eyes.

*Artaxerxes*. Wings brown, upper pair with a white dot in the middle, lower ones with red marginal spaces, with red and white dots on the margin.



STAG BEETLE.

*Lucanus Cervus*; Stag Beetle, sometimes measures nearly two inches and a half in length, from the tips of the jaws to the end of the body. Its general colour is a deep chesnut, with the thorax and head, which is of a blacker cast, the jaws are often of a brighter or redder chesnut colour than the wing shells; the legs and under parts are black, and the wings, except during flight, are concealed under the shells, are large, and of a fine pale yellowish brown.





M	D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	Sun.			Moon.			High Water at London Bridge.		Equation of Time.		Day of the Year
			Rises—R.	—M.	Declina- tion—N.	Rises—R.	—M.	Souths—M.	Agc	Morning.	Afternoon.	Add	
1	W	Battle of the Nile, 1780	3 49 <sup>R</sup>	23 8		Afternoon.	Afternoon.		D	6 37	6 59	3 25	182
2	Th	Hungerford market opened, 1833	8 17 <sup>S</sup>	23 4		11 49 <sup>S</sup>	6 32	9		7 21	7 46	3 37	183
3	F	Dog days begin—This name was given in reference to the heliacal rising of Sirius, commonly called the Dog Star, which in Pliny's time was on the 18th of July	3 50 <sup>R</sup>	23 0		Morning.	7 20	10		8 15	8 49	3 48	184
4	S		8 16 <sup>S</sup>	22 55		0 17 <sup>S</sup>	8 11	11		9 21	9 53	3 59	185
5	S	4TH SUNDAY AFTER TRINITY	3 52 <sup>R</sup>	22 49		0 51 <sup>S</sup>	9 5	12		10 25	11 0	4 10	186
6	M	Old Midsummer-day—Adam Smith died, 1790	8 15 <sup>S</sup>	22 43		1 33 <sup>S</sup>	10 3	13		11 34		4 20	187
7	Tu	St. Thomas à Becket—Commemorative of the assassination of this extraordinary man before the Altar in Canterbury Cathedral—Oxford Act and Cambridge Commencement	3 54 <sup>R</sup>	22 37		2 24 <sup>S</sup>	11 3	14		0 4	0 33	4 30	188
8	W		8 14 <sup>S</sup>	22 31		Afternoon.	Morning.		●	0 59	1 27	4 39	189
9	Th	Bourbons restored, 1815—Massacre in Madrid, [1834]	3 56 <sup>R</sup>	22 24		8 17 <sup>R</sup>	0 4	16		1 50	2 14	4 48	190
10	F	Mercury sets at 9h. 22m. P.M.	8 13 <sup>S</sup>	22 17		8 53 <sup>R</sup>	1 4	17		2 40	3 5	4 57	191
11	S	Oxford Trinity Terms ends	3 58 <sup>R</sup>	22 9		9 25 <sup>R</sup>	2 3	18		3 30	3 53	5 5	192
12	S	5TH SUNDAY AFTER TRINITY	8 12 <sup>S</sup>	22 1		9 53 <sup>R</sup>	2 58	19		4 16	4 38	5 13	193
13	M	Parliament at Nottingham, 1334	4 0 <sup>R</sup>	21 52		10 19 <sup>R</sup>	3 52	20		5 4	5 28	5 21	194
14	Tu	Venus rises at 1h. 30m. A.M.	8 10 <sup>S</sup>	21 43		10 46 <sup>R</sup>	4 44	21		5 53	6 16	5 28	195
15	W	St. Swithin—Remarkable on account of a well-known popular notion, that if it rain on this day, there will be more or less rain for forty days to come. St. Swithin lived a thousand and three years ago. He was an eminently pious and learned bishop of Winchester, and priest of King Egbert	4 2 <sup>R</sup>	21 34		11 16 <sup>R</sup>	5 34	22		6 40	7 7	5 34	196
16	Th		8 8 <sup>S</sup>	21 25		11 46 <sup>R</sup>	6 25	23		7 33	8 3	5 40	197
17	F		4 4 <sup>R</sup>	21 15		Morning.	7 15	24		8 30	9 8	5 46	198
18	S	Mars sets at 9h. 0m. P.M.	8 6 <sup>S</sup>	21 4		0 21 <sup>R</sup>	8 5	25		9 42	10 17	5 51	199
19	S	6TH SUNDAY AFTER TRINITY	4 6 <sup>R</sup>	20 54		1 2 <sup>R</sup>	8 56	26		10 53	11 30	5 56	200
20	M	Burns died, 1796, aged 37	8 4 <sup>S</sup>	20 43		1 48 <sup>R</sup>	9 46	27			0 4	6 0	201
21	Tu	Lord William Russell beheaded, 1683	4 9 <sup>R</sup>	20 31		2 40 <sup>R</sup>	10 35	28		0 34	1 0	6 3	202
22	W	Jupiter rises at 0h. 29m. A.M.	8 2 <sup>S</sup>	20 20		3 35 <sup>R</sup>	11 23	29		1 23	1 45	6 6	203
23	Th	Gibraltar taken, 1704	4 11 <sup>R</sup>	20 8		4 33 <sup>R</sup>	Afternoon.	○		2 7	2 24	6 8	204
24	F	Saturn rises at 9h. 6m. P.M.	7 58 <sup>S</sup>	19 55		Afternoon.	0 54	1		2 44	3 0	6 10	205
25	S	St. James	4 14 <sup>R</sup>	19 42		8 23 <sup>S</sup>	1 37	2		3 16	3 35	6 12	206
26	S	7TH SUNDAY AFTER TRINITY	7 54 <sup>S</sup>	19 29		8 47 <sup>S</sup>	2 20	3		3 50	4 5	6 12	207
27	M	Revolution in Paris, 1830, lasted three days	4 17 <sup>R</sup>	19 16		9 7 <sup>S</sup>	3 2	4		4 21	4 37	6 12	208
28	Tu	Robespierre guillotined, 1794	7 51 <sup>S</sup>	19 2		9 30 <sup>S</sup>	3 44	5		4 52	5 10	6 12	209
29	W	Fieschi's "infernal machine" exploded, 1835	4 21 <sup>R</sup>	18 48		9 52 <sup>S</sup>	4 28	6		5 26	5 43	6 10	210
30	Th	Uranus rises at 9h. 54m. P.M.	7 49 <sup>S</sup>	18 34		10 19 <sup>S</sup>	5 13	7		6 2	6 21	6 9	211
31	F	Greenwich Hospital founded, 1696	4 2 <sup>R</sup>	18 19		10 50 <sup>S</sup>	6 1	D		6 42	7 4	6 6	212

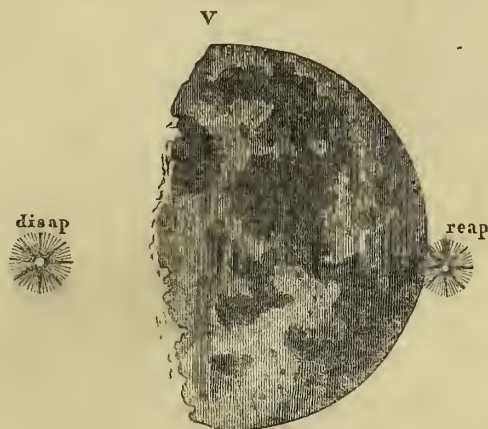
## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth, in each Lunation.	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
First Quarter	1d. 9h. 24m. P.M.	1	7h. 35m. 23° 33'	3h. 49m. 17° 46'	8h. 19m. 20° 50'	4h. 11m. 20° 19'	22h. 12m. 12° 41'	0h. 53m. 4° 57'					
Full Moon	8 11 "	6	8 15 21 39	4 13 19 2	8 32 20 5	4 15 20 31	22 12 12 46	0 53 4 58					
Third Quarter	15 24 "	11	8 50 19 12	4 37 20 7	8 45 19 17	4 19 20 41	22 11 12 52	0 53 4 59					
New Moon	23 8 3 A.M.	16	9 20 16 27	5 1 21 1	8 58 18 25	4 23 20 51	22 10 12 58	0 54 5 0					
First Quarter	31 11 8 "	21	9 46 13 34	5 26 31 42	9 11 17 30	4 28 21 0	22 9 13 4	0 54 5 0					
Apogee	25 7 "	26	10 8 10 44	5 51 22 9	9 24 16 32	4 31 21 9	22 8 13 12	0 54 4 59					
Perigee	10 4 "												



## JULY.

The Moon in her path must necessarily pass between the Earth, and many Stars; and, therefore, causes an occultation of the Star. The times at which some of the Stars are thus hidden by the Moon, are noted in the Astronomical Occurrences of each month; but, during this year there will be only one Star of the first magnitude occulted by the Moon. This phenomenon takes place on July 2d., and is represented in the following Engraving.



OCCULTATION OF α VIRGINIS.

The Stars generally become invisible to the naked eye on the approach of the Moon, on account of the quantity of light from the Moon quite drowning that of the Star; but, it is possible that this Star may be traced to its disappearance by the naked eye. The disappearance of a Star, when occulted by the Moon, is instantaneous, and, to a person who observes such for the first time is very striking; the Star being bright, and in an instant gone altogether without any apparent cause. The Star, on this occasion, is most favorably situated, the disappearance occurring on the dark side of the Moon at the place, as shown in the engraving; and it will take place at 13 minutes after 8 o'clock in the evening. The Star will be behind the Moon for one hour and fifteen minutes, and will re-appear at the part of the bright limb as shown in the engraving, at twenty-eight minutes after 9 o'clock. Its re-appearance will not be so striking as its disappearance, because it emerges at the illuminated limb; but when a Star re-appears at the dark limb, it is as striking as when it disappears at that limb; appearing instantaneously and shining brilliantly, when a moment before nothing was visible.

The drawing of the Moon represents her when about nine days old, and when she is more than a half Moon, and is of that form called gibbous; the similar shining spaces may be seen here as were shown in the engraving in February in the dark part of the Moon near to the confines of light and darkness. The letter V indicates the highest point of the Moon at the time of the phenomenon.

The varying phases of the Moon are as follows:—That side of the Moon can be only illuminated which at any time is towards the Sun, the other side remaining in darkness; and as that part of her can only be seen by us which is turned towards the Earth, we perceive different portions of her illuminated, according to her various positions with respect to the Sun and the Earth. At the time when she is in, above, or below the same straight line, joining the Sun and the Earth, and between them, her dark side is wholly turned towards us, and in that situation she is called the New Moon; at which time she is invisible to us; and if she be, at this time, absolutely in the same straight line joining the Sun and the Earth, an Eclipse of the Sun takes place. In a short time afterwards she appears like a fine crescent in the afternoon, with her horns turned towards the East; as she advances in her orbit, the crescent increases till when she is about a week old, she appears a half Moon, and afterwards increases till she is again in, above, or below the line joining the Sun and the Earth prolonged, the Earth being

between them. And if the line from the Sun to the Earth passes to the centre of the Moon, an Eclipse of the latter takes place. She then gradually decreases and disappears again as at first mentioned.

For some days after the New Moon has appeared, the dark portion of her disc, not exposed to the Sun, is distinctly visible, and is well known as the New Moon in the old one's arms. This effect is best seen when the Moon is about three or four days old, and its true cause was first pointed out by Leonardo da Vinci, who attributed it to the light arising from scattered beams of the Sun being bent into the Earth's shadow by refraction, and reflected to the Moon, and that they undergo a second reflection at the Moon's surface, and are transmitted back to the Earth. This hypothesis is favorably received by Astronomers.

This phenomenon was ascribed by the ancients to the native light of the Moon, to which, on account of its pale ashy hue, they gave the name *lumen incinerosum*, and it is called by the French, *lumière cendrée*. At the Moon the Earth appears the largest body in the Universe, appearing thirteen times greater than the Moon does to us, exhibiting similar phases to herself, but in the opposite order; for when the Moon is full to us, the Earth is invisible at the Moon; and when the Moon is new to us, the Earth appears fully illuminated at the Moon. It follows, as the Earth is so much larger than the Moon, that more light is reflected from the Earth to the Moon than we receive from the Moon—and, as it happens that at about the time of New Moon, the Earth is nearly full to her, and reflects so much light upon her, that the whole of that side which is towards the Earth becomes visible, as well as that portion which is illuminated by the Sun. Schröter considered that a brighter reflection appeared on this obscure part of the Moon, when the land was so situated as to receive the rays from the Sun which were reflected to the Moon, than when they fell on the Pacific or Atlantic Oceans.

Mercury, on July 1st, sets midway between N.W. by W. and the N.W.; at 9h. 16m. p.m., he is situated near Castor and Pollux, at about 4 degrees further from the Pole Star than Pollux is from that star. On the 15th he sets near the W.N.W. point of the horizon, at 9h. 17m. p.m.; he is nearly at the same distance from the Pole Star that Regulus is from that star, and he is 11 degrees E. of Regulus. On the last day he sets near the W. by N. point of the horizon, at 8h. 34m. p.m.; he is about 5 degrees farther from the Pole Star than Regulus is from that star, and he is 8 degrees W. of Regulus. On the 23rd day he will be a little E. of Regulus; on the 24th day he will be 1 degree S. of that star; and by the 25th he will be a little W. of it.

Venus, on the 1st day, rises near the N.E. by E., at 1h. 36m. a.m.; she is in the constellation of Taurus, and situated about 3 degrees south of the line, joining the Pleiades and Aldebaran. On the 15th day she rises in N.E. by E., at 1h. 26m. a.m.; an imaginary line from the Pole Star, through Capella, and continue 25 degrees from the latter star, is nearly the place of Venus; she is also about 9 degrees from Aldebaran, and 15 degrees from γ Orionis. On the last day she rises in the N.E. by E., at 1h. 35m. a.m., and she is situated nearly in a line joining γ Orionis and Castor, being 17 degrees from Castor, and 22 degrees from γ Orionis. The star of the third magnitude, about 6 degrees S.W. of Venus, is γ Geminorum.

Mars on the first day sets in the N.W. by W. at 9h. 42m. p.m.; on the last day he sets at 8h. 26m. p.m., and he is about 5° E. of Regulus; on the 15th day he was about 16° E. of Regulus.

The following is the position of the Constellations that are rising; on the meridian; and setting on the 1st day at midnight:—

Constellations Rising.	Constellations on the Meridian.	Constellations Setting.
A part of Anriga in N. by E.	The head of the Lynx 22 degrees above N. horizon	Leo Minor in N.W.
Perseus 15° above N.E. by N.	Camelopardalus 40° degrees above N. horizon	Leo in N.W. by W.
A part of Aries in E.N.E.	Draco, between Polaris and the Zenith	Virgo in W.
Aquarius 20° high above S.E.	Lyra, in the Zenith and a little S. of it	Libra 15° above S.W.
Capricornus 15° high above S.E. by S.	The Milky Way 45 degrees above S. horizon	Scorpio in S.W. by S.
Rump of Sagittarius in S. by E.	Head of Sagittarius 15 degrees above S. horizon	

## ASTRONOMICAL OCCURRENCES IN JULY.

PLANETS.				OCCULTATION OF STARS BY THE MOON.		
Names.	Time of passing the Meridian or South, on the 15th. day.	When near the Moon.	Distance from the Moon North or South.	Names of the Stars.	Time of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
Mercury . . .	H. M. 1 43 P.M.	D. H. M. 25 10 23 P.M.	4 North	α Virginis . }	D. H. M. 2 8 13 P.M. 2 9 28 „	Dark Bright
Venus . . .	9 24 A.M.					
Mars . . .	1 24 P.M.	24 10 17 „	6 North	ν Scorpii . }	5 10 55 P.M. 5 11 36 „	Dark Bright
Jupiter . . .	8 51 A.M.	19 0 58 A.M.	2 North			
Saturn . . .	2 40 „	12 0 24 „	6 South			
Uranus . . .	5 23 „	15 0 23 „	2 South			

July 29th. 2h. Mercury at his greatest East elongation, being 27° East—(See September.)

July 16th. 2h. 37m. A.M., Jupiter's 1st. Satellite disappears at the distance of nearly half of his diameter from him on the West side.

July 1st. 9h. A.M., the Sun at the greatest distance from the Earth during the year being 96 millions, 590 thousand and 90 miles from the Earth—(See January.)





## JULY.

Then July comes with his hot calms,  
And constant in his kind;  
The man doth thrive to thirty-five,  
And sober grows his mind;  
His children small do on him call,  
And breed him sturt and strife;  
His wife may die, and so must he  
Go seek another wife.

OLD POEM; 1653.

SEEKING THE SHADE.—BATHING, SWIMMING, AND FISHING.

JULY was named Julius by Marc Antony, in compliment to Julius Caesar. The Saxons called it *Heo-Monath*, or *Hey-Monath*, because in it they generally mowed, and gathered in their hay; it was also called *Maed Monath*, because at this season the meads are covered with bloom.

July 1 is the Anniversary of two important events—the Battle of the Boyne, in 1690, at which both James II., and William III., were present; and the Battle of the Nile, in 1780, the result of which was so brilliant, that Nelson said victory was not a sufficient name for it.

Churchill thus glances at the superstitious notions about rain on St. Swithin's Day, (July 15):—

July, to whom the Dog Star in her train,  
St. James gives oysters, and St. Swithin rain.

Gay, in his *Trivia*, mentions:—

How if on Swithin's Feast the welkin low'rs,  
And every penthouse streams with hasty show'rs,  
Twice twenty days shall clouds their fleeces drain,  
And wash the pavements with incessant rain."

There is, too, an old proverb:

St. Swithin's Day, if thou dost rain,  
For forty days it will remain;  
St. Swithin's day if thou be fair,  
For forty days 'twill rain no more.

There is a quaint saying, that when it rains on St. Swithin's Day, it is the Saint christening the Apples. In some church books, there are entries of gatherings of "Sainte Swithine's farthinges" on this day. St. Swithin was *Chancellor of the Exchequer* in the time of King Ethelbert, and the great patron saint of the Cathedral and City of Winchester; in the former is shown a large sculptured stone, which was long believed to cover the remains of the Saxon Saint, but this was disproved in 1797, by the finding of a complete skeleton beneath the stone; and the skull of St. Swithin is known to have been deposited in Canterbury Cathedral: his shrine was formerly kept in a chapel behind the altar in Winchester Cathedral.

With respect to "Rain on St. Swithin's Day," Mr. Howard, the meteorologist, observes: "The notion commonly entertained on this subject, if put strictly to the test of experience at *any one station* in this part of the island, (London), will be found fallacious. To do justice to popular observation, I may now state, that in a majority of our Summers, a showery period, which, with some latitude as to time and circumstances, may be admitted to constitute daily rain for forty days, does come on about the time indicated by this tradition: not that any long space before is often so dry as to mark distinctly its commencement."

A showery disposition in the air has certain tokens, of which the frequency of the Rainbow is one. All showers, however favourable their position with respect to the sun, do not, however, produce equally marked and beautiful Rainbows:

O arch of promise, seen in liquid skies!  
With glittering band of many coloured rays  
In harmonious blending. How mine eyes  
Love to observe thee. As these showery daies,

Changing and many weathered, sometimes smile  
And dash short sunshine through black clouds awhile.  
Then deepening dark again, they fall in raine,  
So is it pleasant now to pause and view,  
Thy brilliant sign in clonds of waterie hue,  
And know the storm will not return againe.

*St. James's Day* (July 25th), was formerly observed by the distribution of food to such as chose to demand it. On *St. James's Day* (old style) oysters came in in London; and there is a popular notion, like that relating to geese on Michaelmas Day, that whoever eats oysters on that day, will never want money for the rest of the year. Yet, this does not accord with another popular conceit, in Butcher's *Dyct's Dry Dinner*, 1599: "it is unseasonable and unwholesome in all months that have not an R in their name to eat an oyster."

Our artist has depicted a beautiful scene of noontide leisure, an episode in the life of "Illustrions Summer." Bathing, sailing, fishing, and all kinds of water frolics, are now in high season. Thomson gives us a life-like picture of the first:—

Cheer'd by the setting beam, the sprightly youth  
Speeds to the well-known pool, whose crystal depth  
A sandy bottom shows. Awhile he stands  
Gazing th' inverted landscape, half afraid  
To meditate the blue profound below;  
Then plunges headlong down the curling flood.

His ebon tresses, and his rosy cheek  
Instant emerge; and through the flexible wave,  
At each short breathing by his lip repell'd,  
With arms and legs according well, he makes,  
As humour leads, an easy-winding path;  
While, on the polish'd slides, a dewy light  
Effuses, on the pleas'd spectators round.

Such a scene, too, as the Poet of Nature sings, is here:

The brook ran bubbling by, and sighing weak,  
The breeze among the bending willows play'd.  
Warm in their cheek, the sultry season glow'd;  
And, rold in loose array, they came to bathe  
Their fervent limbs in the refreshing stream.

This is the purest exercise of health,  
The kind refresher of the summer heats;  
As humour leads, an easy-winding path;  
Even from the body's purity the mind  
Receives a secret, sympathetic aid.

The Fishing at this time of year, that is to say, Perch and Trout fishing, is, perhaps, the best of any fishing that the circle of the season produces. "The witty, companionable, and gentle Gay," who often tried his art to "tempt the tenant of the brook," gives this poetical picture of the fly-fisher:—

He shakes the boughs that on the margin  
Which o'er the stream a waving forest throw,  
When, if an insect fall (his certain guide),  
He gently takes him from the whirling tide.  
Examines well his form with curious eyes,

His gaudy vest, his wings, his horns, and  
Then round the hook the chosen few he winds,  
And on the back a speckled feather binds;  
So just the colours shine through every part,  
That nature seems to live again in art.

Sir Henry Wootton, Provost of Eton College, says Walton, was "a most dear lover and a frequent practiser of the Art of Angling, of which he would say, 'Twas an employment for his idle time, which was then not idly spent, 'for Angling was, after tedious study, a rest to his mind, a cheerer of his spirits, a diverter of sadness, a calmer of unquiet thoughts, a moderator of passions, a procurer of contentedness,' and 'that it begat habits of peace and patience, in those that professed and practised it.'"



## JULY.

During this month these birds sing only which breed late. The young birds of the earlier broods begin to warble in a soft tone, or to *record*, as it is termed. The quail calls; young partridges fly; towards the end of the month the cuckoo leaves us; swallows and martens congregate, and swifts begin to depart. Insects are very abundant—ants, flies, beetles, butterflies and moths abound.

In fact, we have now arrived at the time when the most splendid of all the order of insects, consisting of the moth and butterfly tribes, are becoming numerous. Who has not seen the elegant butterfly fluttering over flowers, which they frequently excel in splendour of colour, and at length resting on them with a touch so light as not to appear to be resting there? Who has not seen them, whilst reposing on the flower, opening and shutting their beautiful wings, alternately erecting and depressing their long and slender antennæ, popularly called horns? and who has not seen the beautiful apparatus by which they extract the nectar from the flowers? We feel assured that there are few among our readers who have not noticed all these things, and who have not been struck with the elegance of these beautiful creatures.

All butterflies and moths proceed from caterpillars, which afterwards change into chrysalides, out of which after a certain time proceeds the perfect insects. The female butterfly deposits her eggs upon such substances as are proper to nourish the caterpillars which proceed from them; thus the common cabbage butterfly places them on cabbage—(See last month); the peacock butterfly on nettles; the swallow-tailed butterfly on fennel or rue; the atalanta butterfly on nettles, &c.—(See next month). These eggs are simply attached by some glutinous secretion, to leaves or stems; in the same way are the eggs of moths placed, except that they are inclosed in down.

The distinguishing characteristics of butterflies are that the horns terminate in a small knob, and the wings, when the insect is at rest, are so placed that they meet upwards. The species of butterflies are so astonishingly numerous, \* that it is found necessary to divide them into different sections. The largest of the genus are termed knights or chiefs, and are divided into Greeks and Trojans, and named from the principal heroes of the Iliad. The Trojans are distinguished by red coloured spots on each side near the breast; and are generally dark coloured. The Greeks have no red marks on the breast, and their colours are generally more brilliant. In our pictorial illustrations of last month we have represented two of those insects, Arion and Artaxerxes, as appearing then, and which will continue to appear in this month. In our engravings of next month will be found represented the swallow-tailed butterfly, which then appears, also with its caterpillar and chrysalis.

Butterflies and moths are divided into three distinct genera, viz.—Butterfly, Sphinx, and Moth. In the last month we have spoken of one species of the moth tribe, and we now proceed to speak of that of the sphinx.

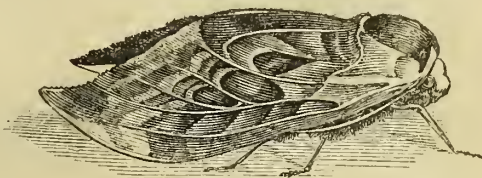


SPHINX MOTH.

The Sphinx or hawkmoths are a genus distinguished by the antennæ or horns, tapering at each end, and which are generally short in proportion to the animal; and by the thickness of their bodies, which in most terminate in a point as is seen in the engraving above.

There are nearly two hundred different species of this genus; they fly about only in the morning and evening; they are slow on the wing, and often make a humming noise. They extract the nectar of flowers. The name of Sphinx is applied on account of the posture assumed by the caterpillars of the larger species, which are often seen with their fore parts risen from, and the rest of the body applied flat to the surface on which they are situated, an attitude much resembling the Egyptian Sphinx. Many of the species are of great beauty and elegance. Most of these caterpillars descend a considerable depth beneath the surface of the

ground, when they are about to change into the chrysalis state, and after lying, in some species a few weeks, in others many months, the chrysalis, by the motions of the included animal forces itself up to the surface, and the complete insect appears in its perfect form.



SPHINX MOTH.—OCELLATA.

The above engraving is that of the sphinx ocellata, in an attitude characteristic of moths generally.

The wings are angular, and the upper ones are brown, as also is the body, the former with various shades; the lower wings are of a bright rose colour, each marked with a large black oval with a blue interior and black centre. This insect proceeds from a green caterpillar of a rough surface; marked on each side by seven oblique yellowish white streaks, and one other near the head nearly horizontal; and it is furnished with a horn at its tail. It is chiefly found on the willow; in the month of August or September it passes into the chrysalis state, which is represented in the annexed engraving.



CHRYSLIS OF THE SPHINX OCELLATA.

And the complete insect emerges from this state in the month of June or July.

The Sphinx Atropos, or the death's head moth, may be expected to be found this month. This is the most remarkable and the largest of this genus of moths. It is described by Dr. Shaw as follows:—"The upper wings are of a fine dark grey colour, with a few slight variations of dull orange and white; the under wings are of a bright orange colour, marked by a pair of transverse black bands; the body is also orange coloured, with the sides marked by black bars, while along the top of the back, from the thorax to the tail, runs a broad blue-grey stripe; on the top of the thorax is a very large patch of a most singular appearance, exactly resembling the usual figure of a skull, or death's head, and is of a pale grey, varied with dull ochre and black." When this insect is disturbed it emits a sound something like the squeaking of a mouse; and from this circumstance, as well as from the mark above mentioned, it is held in much dread by the ignorant in several parts of Europe, its appearance being looked upon as an ill omen of approaching fate, similarly to the effect of the cry of the bittern as described in March.

The caterpillar of this insect is often sought after, and, we shall, therefore, be particular in its description. It is sometimes nearly five inches in length, and, being of a proportionate thickness, it surpasses every other European insect of its kind, and is very beautiful; its colour is a bright yellow; the sides are marked with seven broad bands of a mixed violet and sky-blue colour; the tops of these bands meet on the back, and are varied on that part with black specks; on the last joint of its body is a horn, hanging over the joint, of a rough surface, and of a yellow colour. The favourite food of this caterpillar is the potatoe and the jessamine; it is principally found on the former. It changes into the chrysalis state in the month of July or August, and the moth appears in the following June or July.

The Privet Hawk-moth.—The wings are entire, the lower ones red, with three black bands; the abdomen is red with black belts. The caterpillar will be found on Privet, and is of a green colour, with oblique lateral streaks, which are of a black before, and white behind; the tail is four-toothed.

Those curious vegetable substances of the fungus tribe may be expected this month. The following is one of that species generally found growing on trees.



FUNGUS HYDNUM.

The fungi form a numerous tribe of vegetable bodies, differing in firmness from a watery pulp of short duration, to a leathery woody texture, often very permanent. They cannot properly be said to have any herbage, much less anything like leaves or flowers.

\* Latreille has described above 1800 species in the *Encyclopédie Méthodique*.





M	D	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	Sun.		Moon.			High Water at London Bridge.		Equation of Time.		Day of the Year
			Rises—R. Sets—S.	Declination North	Rises—R. Sets—S.	Souths.	Age	Morning.	Afternoon.	Add.		
1	S	<b>Lammas Day.</b> —Lammas Day, is now only remarkable as a day of term for some purposes. It was one of the great festival days of our heathen ancestors. Lammas seems to have been held as a day of thanksgiving for the new fruits of the earth. It was observed with bread of new wheat; and there was a custom in some places at no distant period for tenants to be bound to bring in wheat of the new crop to their lord on or before this day.	4 25 <sup>R</sup>	18 4	11 26 <sup>S</sup>	6 53	9	7 29	7 57	6 3	213	
2	S		7 44 <sup>S</sup>	17 49	Morning: 0 12 <sup>S</sup>	7 47	10	8 28	9 8	5 59	214	
3	M		4 28 <sup>R</sup>	17 34	8 45	11	9 46	10 23	5 55	215		
4	Tu		7 41 <sup>S</sup>	17 18	1 8 <sup>S</sup>	9 45	12	11 2	11 40	5 50	216	
5	W	Oyster season begins—Fenelon born, 1651	4 31 <sup>R</sup>	17 2	2 15 <sup>S</sup>	10 45	13		0 11	5 44	217	
6	Th	Ben. Jonson died, 1637—Earl Howe died, 1799	7 38 <sup>S</sup>	16 46	3 30 <sup>S</sup>	11 45	14	0 42	1 9	5 38	218	
7	F	Mercury sets at 8h. 7m. P.M., in the W. by N.	4 35 <sup>R</sup>	16 29	4 50 <sup>S</sup>	Morning: 0 43	16	1 37	2 2	5 32	219	
8	S	Venus rises at 1h. 44m. A.M.	7 34 <sup>S</sup>	16 12	Afternoon: 8 21 <sup>R</sup>	1 39	17	2 26	2 50	5 24	220	
9	S	9TH SUNDAY AFTER TRINITY	4 38 <sup>R</sup>	15 55	8 49 <sup>R</sup>	2 34	18	3 14	3 36	5 16	221	
10	M	St. Lawrence—Assassinated by the soldiers of the Emperor Valerian, and his body roasted on a gridiron. The Church of the Escurial at Rome, dedicated to him, is built in the form of a gridiron	7 31 <sup>S</sup>	15 38	9 19 <sup>R</sup>	3 27	19	4 44	5 5	5 8	222	
11	Tu	Grouse Shooting begins: see <i>Natural History</i>	4 41 <sup>R</sup>	15 20	9 50 <sup>R</sup>	4 19	20	5 27	5 50	4 49	223	
12	W	Dowager Queen Adelaide born, 1792	7 27 <sup>S</sup>	15 2	10 24 <sup>R</sup>	5 11	21	6 13	6 35	4 39	224	
13	Th	Jupiter rises near E.N.E. at 11h. 12m. P.M.	4 44 <sup>R</sup>	14 44	11 3 <sup>R</sup>	6 22	22	7 0	7 25	4 28	225	
14	F	<b>Assumption.</b> —Mars sets at 7h. 46m. P.M.	7 23 <sup>S</sup>	14 26	11 47 <sup>R</sup>	6 53	23	7 55	8 27	4 17	226	
15	S	10TH SUN. AFT. TRINITY—Bonaparte born, 1769	4 46 <sup>R</sup>	14 7	Morning: 0 37 <sup>R</sup>	7 43	24	9 7	9 47	4 6	227	
16	S	Duchess of Kent born, 1786	7 19 <sup>S</sup>	13 48	0 37 <sup>R</sup>	8 33	25	10 25	11 4	3 53	228	
17	M	Beattie died, 1803—Twilight nearly ending	4 49 <sup>R</sup>	13 29	1 32 <sup>R</sup>	9 21	26	11 42		3 41	229	
18	Tu	Royal George sunk off Spithead, 1782	7 15 <sup>S</sup>	13 10	2 29 <sup>R</sup>	10 7	27	0 15	0 40	3 27	230	
19	W	Bloomfield died, 1823—Bernadotte crowned, 1810	4 52 <sup>R</sup>	12 50	3 30 <sup>R</sup>	10 52	28	1 4	1 27	3 14	231	
20	Th	Battle of Bosworth Field, 1485	7 11 <sup>S</sup>	12 31	4 30 <sup>R</sup>	11 36	29	1 48	2 5	3 0	232	
21	F	Pompeii and Herculaneum buried by volcano, 63	4 35 <sup>R</sup>	12 11	Afternoon: 7 7 <sup>S</sup>	1 1	2	2 21	2 39	2 45	233	
22	S	11TH SUNDAY AFTER TRINITY	7 7 <sup>S</sup>	11 51	7 13 <sup>S</sup>	1 44	3	2 53	3 10	2 30	234	
23	S	St. Bartholomew—St. Bartholomew was an apostle, but there is no scriptural account of his labours or death. The legend of the Romish Church represents him as preaching in the Indies, and concluding his life by being flayed alive by order of a brother of the king of Armenia. In memory of his death it was customary in the middle ages, to distribute small knives amongst the people. The day has a horrible celebrity in connection with the massacre of the Protestants at Paris in 1572.	4 59 <sup>R</sup>	11 30	7 36 <sup>S</sup>	2 27	4	3 25	3 40	2 15	235	
24	M		5 2 <sup>R</sup>	10 49	7 59 <sup>S</sup>	3 11	5	4 35	4 10	1 59	236	
25	Tu		6 59 <sup>S</sup>	10 29	8 24 <sup>S</sup>	3 11	5	4 26	4 41	1 42	237	
26	W		5 5 <sup>R</sup>	10 8	8 53 <sup>S</sup>	3 58	6	4 56	5 13	1 26	238	
27	Th	St. Augustine	6 55 <sup>S</sup>	9 46	9 26 <sup>S</sup>	4 47	7	5 30	5 48	1 8	239	
28	F	St. John Baptist beheaded	5 8 <sup>R</sup>	9 25	10 6 <sup>S</sup>	5 38	8	6 8	6 29	0 51	240	
29	S	12TH SUNDAY AFTER TRINITY	6 51 <sup>S</sup>	9 4	10 57 <sup>S</sup>	6 33	9	6 54	7 21	0 33	241	
30	M	Length of day, 13h. 36m.	5 12 <sup>R</sup>	8 42	11 56 <sup>S</sup>	7 30	10	7 52	8 30	0 15	242	

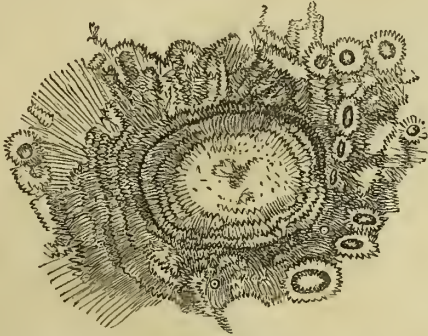
## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee,) or at her least distance (Perigee,) from the Earth, in each Lunation.	Days of the M.	MERCURY		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
Full Moon 7d. 6h. Om. A.M.	1	10h. 27m.	7° 38'	6h. 22m.	22° 22'	9h. 38m.	15° 19'	4h. 36m.	21° 18'	22h. 6m.	13° 21'	0h. 53m.	4° 58'
Third Quarter 13 10 51 P.M.	6	10 37	5 34	6 47	22 16	9 51	14 15	4 39	21 25	22 5	13 29	0 53	4 56
New Moon 21 11 25 P.M.	11	10 41	4 14	7 13	21 54	10 3	13 9	4 43	21 31	22 4	13 37	0 53	4 54
First Quarter 29 10 19 P.M.	16	10 36	3 56	7 39	21 17	10 15	12 1	4 46	21 37	22 2	13 45	0 53	4 52
Perigee 7 1	21	10 25	4 56	8 4	20 25	10 27	10 52	4 49	21 42	22 1	13 53	0 52	4 49
Apogee 21 10 A.M.	26	10 9	7 4	8 29	19 18	10 29	9 40	4 52	21 46	21 59	14 1	0 52	4 46



## AUGUST.

In the month of June we gave as correct a representation of the Moon when full, as the size of our drawing would permit. The several markings of the Moon have been very accurately observed and laid down upon a map, by M. M. Mädler and Beer. To the most remarkable cavities and mountains names have been given, and we have copied from that map, one well known spot called "Tycho," and the following is its representation:



TELESCOPIC APPEARANCE OF A SPOT ON THE MOON.

Those streaky radiations or divergent streams of light seen in the full Moon, also appear round many of the spots, and they appear round Tycho; they have been said to be streams of lava, and it must be admitted they have such an appearance, but they run over hills and valleys for miles.

The spot Tycho consists of a huge mountain in the centre of a vast valley, which is surrounded by a ring of great extent; in the engraving this spot is represented as it appears at the time of full Moon, and, consequently, without shade; at all other times it is variously shaded according to the different angles, that the Sun's light falls upon it, causing shadows of different lengths. It will be readily seen from this, that the surface of the Moon, viewed and watched through a telescope, presents phenomena of the utmost interest.

The increase in the apparent size of the Moon on the same day when in the horizon, to what it appeared to be when high in the heavens, is entirely a visual deception. To the naked eye, she appears larger when in the horizon than at any other time, although she may be, at such time, 4000 miles farther from us, than she was when high.

## HORIZONTAL MOON.

The commonly received explanation of this phenomenon was first given by Descartes, and may be stated as follows:—The opinion which we form of the size of a distant object, depends a good deal on its distance; and we judge distance by a comparison with other bodies. When the Moon is high in the heavens there is no interposing object, or one near with which we can compare her. In consequence of the absence of intermediate objects, we suppose her to be very near; but when she is near the horizon, we are used to observe a large extent of land lying between us and objects near the horizon, at the most distant part of which the sky begins to appear; we, therefore, suppose the sky, with the Moon, to be at a great distance. Now, let all the intermediate objects be concealed from view, then the Moon does not appear so large. Let the Moon be viewed through a tube which allows her alone to be seen, and the illusion disappears. And so it will, if viewed through a piece of smoked glass; care must however be taken to place the eye, so that no body be visible but herself. Viewed through a telescope, and correctly measured, it is found not to be really larger. A full Moon in the horizon appears to be of an oval form; this is owing

to the atmosphere at the lower part being more dense than that at the upper, and in consequence the lower part of the Moon appears to be more thrown upwards than is the upper, and, therefore, her vertical diameter appears to be shortened. This perhaps will be better understood, by the knowledge of the fact, that every ray of light which passes out of any medium to one more dense, is turned towards the Zenith. Every one must be aware that if they place a straight stick in water, that it appears to be bent in consequence of the different densities of the air and water; so also every ray of light from every heavenly body is similarly bent, till it meets the eye, and that heavenly body is seen in the direction of the last bend of the ray; this deviation from the true place is greater and greater the nearer the object is to the horizon; the difference of those deviations from two points near the horizon, separated by the diameter of the Moon, causes that oval form before referred to.

## TIMES OF RISING AND SETTING OF THE PLANETS, WITH THE POINTS OF THE HORIZON INDICATED AT WHICH THEY RISE OR SET, WITH THEIR SITUATIONS RELATIVELY TO THE FIXED STARS NEAR THEM, ETC.

Mercury, on the first day, sets in the W. by N. at 8h. 29m. P.M.; he is situated about 5 degrees further from the Pole Star than Regulus, and about 9° W. of the latter star; on the 15th day he sets a little N. of E. at 7h. 16m. P.M., and he is about 8° further from the Pole Star than Regulus, and he is 13° S.W. of the latter star; and on the last day he rises in the E. by N. at 4h. 21m. A.M., and is about 2° S. of Regulus.

Venus rises nearly in the N.E. by E. point of the horizon all the month. On the 1st day at 1h. 36m. A.M., and she is situated nearly in a line joining  $\gamma$  Orionis and Castor, being 16° from the latter and 23° from the former; on the 15th day she rises at 1h. 57m. A.M., and she is 6° farther from the Pole Star than Pollux, being nearly in a line joining Pollux and Procyon, the little Dog Star. On the last day she rises at 2h. 38m. A.M., and at this time an obtuse angled triangle is formed by Venus, Regulus, and Procyon, she being 11° from Regulus and 14° from Procyon, being N. of the line joining these Stars.

Mars sets in the W.N.W. on the first day at 8h. 25m. P.M., and he is situated about 4° E. of Regulus. On the 15th day he sets near the W.N.W. at 7h. 47m. P.M., and he is now 4° W. of Regulus. On the last day he sets at 7h. 1m. P.M., in the W. by N. point of the horizon, and he will be found by imagining a line from the Pole Star drawn through the Pointers and continued till it meets another line about 14° W. of Regulus: the Planet is also 14° S.E. of  $\beta$  Leonis at this time.

Jupiter rises nearly midway between the N.E. by E. and the E.N.E. points of the horizon throughout the month. On the 1st day, at 11h. 52m. P.M. At this time he is situated in a line from Aldebaran to midway between Capella and  $\beta$  Aurigæ, at the distance of nearly 7° from Aldebaran. On the 15th day he rises at 11h. 5m. P.M., and he is situated nearly midway between Aldebaran and  $\beta$  Tauri, and he is also near the Moon (*See below*). On the last day he rises at 10h. 9m. P.M. and he is situated a little S. of the line joining Aldebaran and  $\beta$  Tauri, being 7½° from the latter, and 9½° from the former.

Saturn rises in the E.S.E. point of the horizon throughout the month. On the first day at 8h. 34m. P.M., and on the last day at 6h. 33m. P.M.

The following is the position of the Constellations that are rising; on the meridian; and setting on the 1st day at midnight:

Constellations Rising.	Constellation on the Meridian	Constellations Setting.
A part of Gemini in N.N.E.	The head of Ursæ Major 27° above N. horizon	Leo Minor in N.N.W.
Taurus in N.E. by E.	Cepheus between the Zenith and Polaris	Coma Berenices in N.W. by N.
Pleiades 10° above E.N.E.	Cygnus near the Zenith and S of it	Boötes in W.N.W.
Cetus from E. to S.E.	Dolphinus 55° above S horizon	Libra in W. by S.
Piscis Australis in S.S.E.	Capricornus 20° above S horizon	Sagittarius in S.S.W.
	The Northern Crown (Corona Borealis) 30° above W. by N.	

## ASTRONOMICAL OCCURRENCES IN AUGUST.

PLANETS.				OCULTATION OF STARS BY THE MOON.		
Names.	Time of Passing the Meridian or South, on the 15th day.	When near the Moon.	Distance from the Moon North or South.	Names of the Stars.	Time of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
Mercury . . .	H. M. 1 4 P.M.	D. H.	DEG.		D. H. M. 9 11 14 P.M.	Bright
Venus . . .	10 0 A.M.			21 Piscium }	10 0 20 A.M.	Dark
Mars . . .	0 39 P.M.	22 5 P.M.	5 North	3 Tauri }	15 1 1 "	Bright
Jupiter . . .	7 12 A.M.	15 4 "	3 North		15 1 54 "	Dark
Saturn . . .	0 30 A.M.	8 8 A.M.	6 South			
Uranus . . .	3 20 A.M.	11 8 "	2 South			

August 1st, 7h. A.M., Mercury at his greatest distance from the Sun.

August 9th, 7h. 23m. A.M., Mars at his greatest distance from the Sun.

August 11th, 8h. A.M., Mercury stationary with respect to the fixed stars.—(*See September.*)

August 25th, 3h. 35m. A.M., Mercury in inferior conjunction with the Sun.—(*See September.*)

August 8th, 2h. 47m. A.M., an Eclipse of Jupiter, 1st Satellite; on the W. side of the planet, at the distance of ⅓th of his diameter.

August 15th 3h. 1m. A.M., an Eclipse of Jupiter, 2nd Satellite, on the W. side of the planet, at the distance of 1 of his diameter.

August 6th, 1h. 34m. A.M., an Eclipse of Jupiter, 3rd Satellite, on the W. side of the planet, at the distance of 2 of his diameters.





## AUGUST.

Then August old, both stout and bold,  
When flow'rs do stoutly stand,  
So man appears at forty years,  
With wisdom and command;  
And doth provide his house to guide,  
Children and family;  
Yet do not miss t' remember this,  
That one day thou must die.  
OLD POEM; 1653.

E. DALZIEL SC.

## THE MOST SURROUNDED BY HIS FAMILY, RECEIVES THE QUEEN OF HARVEST FOLLOWED BY THE HOCK-CART AND CEREAL PROCESSION.

August is named from Octavius Cæsar, better known as Augustus, when the Senate, to pay the same tribute to him as had already been rendered to Julius Cæsar, decreed, that to commemorate his many triumphs, should from him take the name of Augustus, which we call August. The Saxons called it *Wead-Monat-wead*, signifying a covering or garment, and thus they expressed the beautiful clothing of the ground in harvest.

Gule of August, or Lammass Day, is variously explained. *Gule*, from the Celtic or British *Wyl*, or *Gule*, signifies a Festival or Holiday, and explains Gule of August, to mean the holiday of St. Peter and Vincula in this month, when the people of England, in Roman Catholic times, paid their Peter pence. *Lammass* is, by some, derived from Lamb-masse, because, on that day, the tenants who held lands of the Cathedral church in York, which is dedicated to St. Peter and Vincula, were bound, by their tenure, to bring a live lamb into the church at high mass; others trace it to the Saxon loaf-masse, or bread-masse, from the first-fruits offering referred to in the Calendar, (Aug. 1.)

The Anniversary of the Accession of the House of Brunswick to the British Throne, August 1, (1714), was formerly celebrated; "Dogget's Coat and Badge" rowed for on this day, annually, on the Thames, was bequeathed by Thomas Dogget, the comedian, in commemoration of the above event.

The Transfiguration, (Aug. 6.) festival was abolished, in England, at the Reformation; but is still celebrated with much pomp and solemnity in the Greek and Latin churches.

The Assumption of the Virgin Mary, (July 15.) was formerly a great Festival; and, upon this day, it was customary to implore blessings upon herbs, plants, roots, and fruits. Wordsworth has some exquisite lines on the eve of this Festival—meditations amid the silent splendour of "the midnight moon," in Italy:

The watchman on the battlements partakes  
The stillness of the solemn hour; he feels  
The silence of the earth, the endless sound  
Of flowing water soothes him; and the stars,  
Which in that brightest moonlight well nigh quenched,  
Scarcely visible, as in the utmost depth  
Of yonder sapphire infinite are seen,  
Draw on with elevating influence  
Toward eternity, the attempered mind.  
Musing on worlds beyond the grave he stands,  
And to the Virgin Mother silently  
Breathes forth her hymn of praise."

*St. Roch's Day*, (Aug. 16.) was formerly celebrated as a general Harvest-Home in England. Sir Thomas Overbury, (1630), under the Franklin, says, "he allows of honest pastime, and thinks not the bones of the dead anything bruised, or the worse for it, though the country lasses dance in the churchyard after even-song. *Rock Monday*, and the wake in summer, shrotings, the wakeful ketches on Christmas Eve, the hoky, or seed cake, these he yearly keeps, yet holds them no reliques of Popery."

Harvest-Home, from the Saxon *herfest*, *q.d.* herb-feast, is defined by Ash, to be Harvest-Home, "the last loaf of the harvest, the feast at the end of the harvest

a song sung at the end of the harvest; the opportunity of gathering harvest treasure." With us, the festival is, doubtless, as old as agriculture. Thomson has left us this beautiful description of its rustic joys:—

The harvest treasures all  
Now gather'd in, beyond the rage of storms,  
Sure to the swain; the circling fence shut up;  
And instant Winter's utmost rage defy'd.  
While, loose to festive joy, the country round  
Laughs with the loud sincerity of mirth,  
Shook to the wind their ears. The toil-strung  
youth  
By the quick sense of music taught alone,  
Leaps wildly graceful in the lively dance.

Her ev'ry charm abroad, the village toast,  
Young, buxom, warm, in native beauty rich,  
Darts not unmeaning looks; and where her eye  
Points an approving smile, with double force  
The edg'd rattles, and the wrestler twines  
Aze, too, shines out; and gaudious, recounts  
The feats of youth. Thus they rejoice, nor  
think  
That, with to-morrow's sun, their annual toil  
Begins again the never-ceasing round.

Harvest-Home customs are too various for us to detail. "The Queen of Harvest," whom our artist has portrayed, was anciently brought home with the last load of corn; though an image was formerly thus richly dressed up, to represent the Roman Ceres, as recorded by Hentzner, in 1598, in a Harvest-home at Windsor. Here, too, are the pipe and tabor, the latter taken from the tumbrel of Miriam, as an accompaniment to her song and victory after the passage of the Red Sea. In the distance is seen the Hock Cart, "with all its gear," commemorated by Herrick:—

Come, sons of Summer, by whose toils  
We are the Lords of Wine and Oile,  
By whose tough labours and rough hands,  
We rip up first, then reap our lands,  
Crown'd with the ears of corn, now  
come,  
And to the pipe sing Harvest-home;

Come forth, my Lord, and see the Cart,  
Drest up with all the country art.

About the Cart, hear how the rout  
Of rural younglings raise the shout;  
Pressing before, some come after,  
Those with a shout, and these with laughter.

Bloomfield has left us a picture of Harvest-Home in Suffolk, where the foremost man in the field was honoured with the title of "Lord," and at "the Horkey" or Harvest-Home Feast, he collected money from the farmers and visitors, to make a "frolic" afterwards, called the "largess" spending; but in Bloomfield's time, this custom was going fast out of use. In his ballad—the Horkey, he sings:—

Home came the jovial Horkey Load,  
Last of the whole year's crop;

And Grace among the green boughs rode,  
Right plump upon the top.

*Leasing or Gleaming*, dates from three thousand years and upwards, as testified by Ruth. "If it were not then first instituted, it was secured and regulated by an especial ordinance of the Almighty to the Israelites in the wilderness, as a privilege to be fully enjoyed by the poor of the land, whenever their triumphant armies should enter into possession of Canaan. By this law, in the field where the corn grew, 'clean riddance' was not to be made, the corners were to be left unreaped, and even the forgotten sheaf was not to be fetched away by the owner, but to be left for the 'poor and the stranger, the fatherless, and the widow.'"

*St. Bartholomew's Day* (August 24), is now kept as a holiday at the Bank, and certain Law Offices. Many centuries since, labour was forbidden on this day; and subsequently, only Harvest-work was allowed by law.



## AUGUST.

Young broods of goldfinches are now seen; lapwings congregate, as also do linnets; the nuthatch chatters; the wryneck departs; the aberdevine, the mountain finch, the crossbeak, the turnstone, and the knot arrive; and birds re-assume their Spring notes.

The nuthatch is six inches in length. A black line passes over each eye from the bill, extending down the side of the neck as far as the shoulder; all the upper part of the body is of a fine blue-grey colour; the cheeks and chin are white; breast and belly of a pale orange colour. The aberdevine is in length nearly five inches. Top of the head and throat, black; over each eye there is a pale yellow streak; back of the neck and the back yellowish olive; runip yellow; under parts greenish yellow. The crossbeak is nearly seven inches in length. It will be readily distinguished by the upper and lower mandibles crossing each other at the points; its general colour is reddish on the upper parts; belly white. The turnstone is eight inches in length—and it is a prettily variegated bird. The ground colour of the head and neck is white, with small spots on the crown and hinder parts; a black streak crosses the forehead to the eyes.



FEMALE.

GROUSE.

MALE.

We have above given an engraving of black grouse, the male and the female, though at this time, or before, the sexes have separated and live in flocks apart.

The male is a bird of considerable size, being in length nearly two feet, and its stretch of wings is nearly three feet; and when in prime condition, which is during the early parts of the Winter, it weighs from three to four pounds. The bill is short and very strong; the eyes vary in different lights, from hazel to blue; over the eye is a naked space of very bright scarlet colour, and granulated; under the eye there is a similar one of a white colour. The one above the eye is much dilated in the breeding season, and frequently extends to the top of the head. The patch under the eyes, in old birds, is very conspicuous, but in young birds it is scarcely visible till after the second year. The general colour of the plumage is a deep black, with rich reflections of purple, blue, and bronze green. The blue is finest on the neck, and the green on the feathers of the tail. The under part is black with the exception of the under tail coverts, which are white. A spot on the wing, the tip of the bastard wing, the bases of the quills, except the first four, and the tips of some other quills are also white; forming a bar of white across the wings, as seen in the engraving. The wings are broad; and the tail consists of sixteen feathers, the external ones a little produced, and curling outwards, so as to give them that peculiar form as seen above. The female, as will be observed, differs very considerably in size, and also in colour; the general colour being brown, deeper on the back than any other part, and mottled all over with black; the tail is not so much produced, and the forked form is scarcely perceptible. The weight is about two pounds four or five ounces.

In Autumn and Winter the males live in flocks and at peace, but on the return of Spring they assemble in great numbers, on the tops of high and healthy mountains; they having put on the rich glosses of their nuptial plumage, begin to fight for superiority, as is the case with all polygamous birds. This fight continues with great bitterness till the vanquished are put to flight. The victors then perch on the tops of high trees or other elevated spots, and by crowing and clapping their wings, give notice to the females, who soon resort to them. It is said that each cock has two or three hens, which seem particularly attached to him. The nest is made on the ground; the female does not perch till her brood are able to perch with her. During this time the males remain in the close vicinity of the females, watching them and their broods with great attention; until they

are matured, when he joins the other males for the season of celibacy.

The young cocks at first resemble the mother, the external distinctions of sex not appearing till the end of Autumn.



SWALLOW-TAIL BUTTERFLY.

Insects are very numerous; the above is one of great beauty; it is of a brilliant yellow, with black spots along the upper edges of the larger wings; all the wings are bordered with a deep edging of black, decorated by a double row of crescent-shaped spots, of which the lower row is yellow, and the upper blue. The under wings are tailed, and are marked at the inner angle with a round red spot, edged with blue and black.



THE LARVA OR CATERPILLAR OF THE SWALLOW-TAILED BUTTERFLY.

The caterpillar is of a green colour, encircled with numerous black bands, spotted with red, and is furnished on the top of the head with a pair of short tentacles of a red colour—which it occasionally protrudes from that part. It feeds principally on fennel, and it is sometimes found on rue; in the month of July it changes into the chrysalis state.



THE CHRYSALIS OF THE SWALLOW-TAILED BUTTERFLY.

The colour of the chrysalis is of a yellowish-grey; it is generally affixed to some part of a plant, or other neighbouring substance; and from this state, in this month, the complete butterfly, as represented and described above, proceeds.

The Peacock butterfly is very common. The wings are angular, spotted with black, and on each there is a large blue eye. The caterpillar from which it proceeds is black, with many white spots. It feeds principally on the nettle, and changes into the chrysalis in July, and the butterfly appears in August. Mr. White, in his *History of Selborne*, records an instance of seeing this insect on March 6th. We now proceed to describe the Atalanta butterfly. Its wings are black, upper pair with a red band and white spots, the lower ones bordered with red behind. The caterpillar from which this beautiful insect proceeds, is brown and shiny, and feeds on nettles—it changes into a chrysalis in July; the butterfly appearing in August.





ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.

D	W	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN.		MOON.			High Water at London Bridge.		Equation of Time.		Day of the Year	
			Rises—R. Sets—S.	Declina- tion North	Rises—R. Sets—S.	Souths.	Age	Morning.	Afternoon	Subtract.			
			H.	M.	H.	M.	D.	H.	M.	H.	M.	N.	S.
1	Tu	Partridge shooting begins— <i>St. Giles</i> — <i>St. Giles</i>	5 13 <sup>R</sup>	8 20				8 28 11	9 13	9 56	0 4	244	
2	W	was a native of Greece, and became Abbot of Nismes in 715. He literally obeyed the scriptural injunction by selling his patrimony for the benefit of the poor, and on one occasion gave his coat to a sick mendicant, who was cured miraculously by putting it on. <i>St. Giles</i> thus became the patron saint of beggars and cripples.	6 44 <sup>S</sup>	7 59	1 6 <sup>S</sup>	9 27 12		10 37	11 20	0 23	245		
3	Th		5 16 <sup>R</sup>	7 37	2 23 <sup>S</sup>	10 25 13		11 54		0 42	246		
4	F		6 40 <sup>S</sup>	7 15	3 44 <sup>S</sup>	11 22 14		0 25	0 54	1 1	247		
5	S	Mars rises at 5h. 26m. A.M., and sets at 6h. 48m.	5 20 <sup>R</sup>	6 52	5 9 <sup>S</sup>	Morning.	●	1 21	1 43	1 21	248		
6	S	13TH SUNDAY AFTER TRINITY [P.M.]	6 35 <sup>S</sup>	6 30	Afternoon.	0 18 16		2 8	2 31	1 41	249		
7	M	Jupiter rises at 9h. 48m. P.M.	5 23 <sup>R</sup>	6 8	7 17 <sup>R</sup>	1 12 17		2 51	3 15	2 1	250		
8	Tu	<i>Nativity of the Virgin Mary</i>	6 29 <sup>S</sup>	5 45	7 47 <sup>R</sup>	2 6 18		3 37	3 57	2 22	251		
9	W	William the Conqueror died, 1087	5 26 <sup>R</sup>	5 22	8 22 <sup>R</sup>	3 0 19		4 20	4 40	2 42	252		
10	Th	Mungo Park died, 1771	6 25 <sup>S</sup>	5 0	9 0 <sup>R</sup>	3 54 20		5 0	5 23	3 3	253		
11	F	Thomson (Seasons) born, 1700	5 29 <sup>R</sup>	4 37	9 44 <sup>R</sup>	4 46 21		5 43	6 4	3 23	254		
12	S	Length of the day 12h. 50m.	6 20 <sup>S</sup>	4 14	10 33 <sup>R</sup>	5 38 6		6 30	6 53	3 44	255		
13	S	14TH SUNDAY AFTER TRINITY	5 32 <sup>R</sup>	3 51	11 27 <sup>R</sup>	6 28 23		7 20	7 50	4 5	256		
14	M	<i>Holy Cross</i> —Moscow burnt, 1812	6 16 <sup>S</sup>	3 28	Morning.	7 17 24		8 28	9 10	4 26	257		
15	Tu	Saturn rises at 5h. 28m. P.M., and sets at 3h. 4m.	5 35 <sup>R</sup>	3 5	0 23 <sup>R</sup>	8 4 25		9 51	10 31	4 47	258		
16	W	Fox died 1806, aged 57 [A.M.]	6 12 <sup>S</sup>	2 42	1 23 <sup>R</sup>	8 50 26		11 9	11 46	5 8	259		
17	Th	London and Birmingham Railway opened, 1838	5 38 <sup>R</sup>	2 19	2 25 <sup>R</sup>	9 34 27			0 15	5 29	260		
18	F	Mercury rises at 4h. 8m. A.M.	6 7 <sup>S</sup>	1 55	3 26 <sup>R</sup>	10 17 28		0 38	1 0	5 51	261		
19	S	Venus rises at 3h. 34m. A.M., and sets at 5h. 34m.	5 42 <sup>R</sup>	1 32	4 29 <sup>R</sup>	11 0 29		1 18	1 38	6 12	262		
20	S	15TH SUNDAY AFTER TRINITY [P.M.]	6 2 <sup>S</sup>	1 9	5 34 <sup>R</sup>	11 43 0		1 55	2 10	6 32	263		
21	M	<i>St. Matthew the Apostle</i>	5 45 <sup>R</sup>	0 45	Afternoon.	6 28 5		1 25	2 42	6 53	264		
22	Tu	New Post-office opened, 1829 [length]	5 58 <sup>S</sup>	0 21	Afternoon.	1 10 2		2 55	3 11	7 14	265		
23	W	Porson died, 1808—Day and night of nearly equal	5 48 <sup>R</sup>		South.	6 57 5		3 26	3 42	7 35	266		
24	Th	Jupiter rises at 8h. 45m. P.M.	5 54 <sup>S</sup>	0 25	7 28 <sup>S</sup>	2 44 4		3 57	4 13	7 56	267		
25	F	Mars rises at 5h. 21m. A.M.	5 51 <sup>R</sup>	0 48	8 7 <sup>S</sup>	3 35 5		4 29	4 47	8 16	268		
26	S	Saturn rises at 4h. 43m. P.M., and sets at 2h. 17m.	5 50 <sup>S</sup>	1 11	8 53 <sup>S</sup>	4 27 6		5 3	5 24	8 36	269		
27	S	16TH SUNDAY AFTER TRINITY [A.M.]	5 55 <sup>R</sup>	1 35	9 48 <sup>S</sup>	5 22 7		5 44	6 6	8 57	270		
28	M	Sheriffs sworn—Length of day 11h. 48m.	5 45 <sup>S</sup>	1 59	10 50 <sup>S</sup>	6 18 8		6 32	6 59	9 17	271		
29	Tu	<i>St. Michael</i> —Michaelmas Day.—A grand festival	5 58 <sup>R</sup>	2 22	Morning.	7 14 9		7 32	8 10	9 36	272		
30	W	of the Romish and English churches, established 487, in honour of <i>St. Michael</i> and all the Holy Angels.	5 41 <sup>S</sup>	2 45	0 1 <sup>S</sup>	8 10 10		8 54	9 38	9 56	273		

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
Full Moon	5th. 1h. 16m. P.M.	1 9h. 55m.	10°	1' 8h. 59m.	17° 39'	10h. 54m.	8° 12'	4h. 54m.	21° 50'	21h. 58m.	14° 11'	0h. 51m.	4° 42'
Third Quarter	12 11 42 A.M.	6 9 56	11	37 9 24	16 3 11	5	6 57	4 57	21 53 21	56 14 18	0 50	38	
New Moon	20 3 34 P.M.	11 10 11	11	45 9 48	14 15 11	7	5 41	4 58	21 56 21	55 14 25	0 50	34	
First Quarter	28 7 27 A.M.	16 10 36	10	19 10 12	12 18 11	29	4 24	5 0	21 58 21	54 14 32	0 49	4	30
Perigee	4 11 P.M.	21 11 7	7	37 10 36	10 11 11	41	3 7	5 1	21 59 21	52 14 38	0 48	4	25
Apogee	17 3	26 11 40	4	9 10 59	7 57 11	53	1 49	5 2	22 0 21	51 14 43	0 48	4	21

NOTE.—September 23rd. at about a quarter to 11 o'clock A.M., the Sun will be on the Equator, and, therefore, without declination.



## SEPTEMBER.

**MERCURY** is a small Planet, but shines with a very bright white light, though, by reason of being always near the Sun, he is seldom to be seen with the naked eye. The times that he may be best seen in the present year, are the following:—On January 18th, he rises about one hour and a half before the Sun, and, therefore, for a few days before and after January 18th, at about 7 o'clock in the morning; on March 30th, he sets 1h. 53m. after the Sun, and, therefore, for a few days before and after that day, at about 7 o'clock in the evening; on May 16th, he rises at 3h. 34m. A.M., being about half-an-hour before the Sun only, so that the time is not favourable, but it is the best between March 30th and July 28th; on the latter day he sets at 8h. 45m. P.M., being about 55 minutes after the Sun has set. The next date is that of the 10th of this month, September, and it is by far the most favourable time during the whole year. The proper time for viewing him is about one hour before sunrise, between the 5th day and the 15th day; but even at these times, as he never occupies a dark portion of the heavens, it is necessary to know exactly where to look for him; on the 8th day of September he will be about one degree South of the star Regulus (*to find Regulus see the month of March.*) Before the 8th day he will be West of Regulus, and about  $1\frac{1}{2}$  degree South of that star, and after the 8th day he will be East of Regulus, and about  $1\frac{1}{2}$  degree South of it. With these directions the Planet will be easily found; and it will be much more easily seen at this time than in the evenings of March (the next best time to see him), in consequence of the strong twilight in that month. On November 22nd he will set about 55 minutes after the Sun, or, a few minutes before 5 P.M.; and lastly, for a few mornings, at 7 o'clock, after December 27th; on December 31st he will rise at about 6 $\frac{1}{2}$  A.M., being about 1h. 50m. before the Sun. At all other times during the year, he will either rise or set too near to the time of the Sun's rising or setting to be easily visible.

From what has preceded it is clear that Mercury, like Venus (*See the month of May*), is always in that quarter of the heavens near the Sun. His greatest angular distance from the Sun, or his elongation, is between  $16^{\circ}$  and  $29^{\circ}$ ; the least elongation during the present year, is that of  $17^{\circ} 55'$ , on the 11th day of this month; the greatest was  $27^{\circ} 12'$ . (*See July.*) When this Planet is at his greatest angular distance from the Sun, he is seen as a half-circle, and passing from this position behind the Sun, or on the opposite side of the Sun to that at which the Earth is, he appears like Venus more than a semicircle; and when he is in, above, or below, the straight line drawn from the Earth through the Sun to him, he would appear circular, and he is at that time at his superior conjunction with the Sun; when he appears on the other side of the Sun he appears again semi-circular, and passing then from this position before the Sun, his illuminated portion has the form

1 2 3 4 5



DIFFERENT APPEARANCES OF MERCURY DURING THE YEAR.

of a crescent, and which, like Venus, becomes narrower and narrower, and is at its smallest dimensions, at the time when he is in, above, or below, the straight

line joining the Sun and the Earth, or at his inferior conjunction with the Sun. To those persons who have attended to the explanation of the phases of the Moon, these circumstances afford satisfactory evidence that he does not shine by his own light. The successive appearances of Mercury during the year, are represented in the accompanying engraving, and the days on which the illuminated portion of the Planet has these appearances are as follows:—

That marked 1, on	January 18th;
" "	May 16th;
" "	September 11th;
" "	December 31st.
That marked 2, on	March 6th;
" "	June 20th;
" "	October 7th.
That marked 3, on	March 30th;
" "	July 29th;
" "	November 23rd.
That marked 4, before	April 18th;
" "	August 25th;
" "	December 11th.
And that marked 5, after	April 18th;
" "	August 25th;
" "	December 11th.

The scale upon which these are laid down, is the double of that used in the representation of the phases of Venus, and to compare the two together it is necessary to halve the size of the above.

During this month that phenomena in our latitude, and in corresponding latitudes in the Southern hemisphere, of the Moon rising for several nights at nearly the same time, instead of rising about 50 minutes later every night, occurs, and as it is beneficial to the farmer, it has been called the Harvest Moon. It is the more striking the nearer the time of full Moon happens, to the time of the autumnal equinox; now it happens in this year, that the full Moon is as far removed as possible from the time of the equinox, that is, from the 20th of the month; in fact, that day is the day of new Moon, and the Moon, instead of rising only by 15 minutes later every night, will rise nearly 30 minutes later; for instance, on the 6th day she rises at 6h. 48m., and on the next evening she rises at 7h. 17m.; therefore, the Harvest Moon of this year will be the least beneficial to farmers, by giving them the least light after sun-set that it is possible for her at this time to give. The Moon following that called the Harvest Moon, is called the Hunters' Moon, and as it is removed but a little farther from the equinox than the Harvest Moon, it will be nearly under similar circumstances to that Moon, and, therefore, for several nights this year the Hunters' Moon will rise only about 35 minutes later night by night. (*See time of Moon rising, October 5th, 6th, 7th, &c.*)

Mercury, on the 1st day, rises in the E. by N. at 4h. 14m. A.M., and on the 15th day he rises midway between the E. by N. and the E.N.E., at 3h. 58m. A.M., and on the last day he rises in the East at 5h. 24m. A.M.; the directions for finding him are explained above.

Venus is still a morning star; she rises E.N.E., till near the end of the month, and in the E. by N. at the end. On the 1st day, at 2h. 42m. A.M.; on the 15th day, at 3h. 23m. A.M.; and on the last day, at 4h. 9m. A.M. On the 1st day she is nearly in the same place as on October 31st; on the 15th day she is about two degrees W. of Regulus, being near Mercury; and on the last day, Venus,  $\beta$  Leonis and Regulus form a triangle, she being 11 degrees S.S.E. of  $\beta$  Leonis, and about 21 degrees W. of Regulus.

## ASTRONOMICAL OCCURRENCES IN SEPTEMBER.

PLANETS.				JUPITER'S SATELLITES.		OCULTATIONS OF STARS BY THE MOON.		
Names	Time of passing the Meridian or Southing on the 15th day	When near the Moon	Distance from the Moon, North or South	Eclipses of		Names of the Stars.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
				1st. Sat.	2nd. Sat.			
				Immersion	Immersion and Emersion			
Mercury . . .	H. M. 10 54 A.M.	D. H.	DEG.	D. H. M. 8 11 17 P.M.	D. H. M. 2 0 8 A.M.	p Sagittarii . {	D. H. M. 1 9 18 P.M. 1 10 24 "	Dark Bright
Venus . . .	10 32 "	18 8 P.M.	6 North	16 1 11 A.M. 23 3 4 " 30 4 58 "	9 0 11 } 9 2 46 } 16 2 49 "			
Mars . . .	11 50 "				3rd. Sat.	M Tauri . {	12 3 12 A.M. 12 4 28 "	Bright Dark
Jupiter . . .	5 24 "	12 4 A.M.	3 North		10 11 42 P.M.			
Saturn . . .	10 16 P.M.	2 0 P.M.	6 South		18 1 30 } 18 3 42 } A.M.			
Uranus . . .	1 15 A.M.							

September 3rd, 5h. P.M., Mercury stationary with respect to the fixed Stars. (*See above*)  
 September 10th, 9h. P.M., Mars in conjunction with the Sun.  
 September 11th, 8h. A.M., Mercury at his greatest W. elongation, 18 degrees. (*See above.*)  
 September 14th, 7h. A.M., Mercury at his least distance from the Sun.  
 September 20th, 4h. A.M., All four of Jupiter's Satellites on the East side of the Planet.  
 September 23rd, 8h. A.M., Venus at her least distance from the Sun.  
 September 24rd, 10h. A.M., Sun enters Libra, and Autumn commences.





## SEPTEMBER.

September then comes with his train,  
 And makes the flowers to fade;  
 The month belyes is forty-five  
 Grave, constant, wise, and staid;  
 When he looks on, how youth is gone,  
 And shall it no more see,  
 Then may he say, both night and day,  
 Have mercy, Lord, on me!  
 OLD POEM; 1653.

THE HOST HAVING RETURNED FROM HIS SUCCESSFUL DAY'S FIELD SPORTS, WITH HIS FAMILY, WITNESSETH FOOTBALL.

SEPTEMBER was named to mark its position of seventh (*Septem*), month in the Alban Calendar—and from *imber*, (shower); it being the commencement of the wet season in Rome. The Saxons called it *Gerst Monath*; *gerst*, or barley, being then in perfection. After the establishment of Christianity, this month was called by the Saxons *Halg-Monath*, the Holy Month, from the numerous religious ceremonies observed in the course of it.

The Anniversary of the Great Fire of London, Sept. 2, (1666) is, to this day, kept as a Holiday at the Bank, Customs, and Excise.

Bartholomew Fair is held on September 3, St. Bartholomew's Day, in the Old Style: it originated in two fairs or markets, one for the clothiers of England, and drapers of London, granted to the Prior of the Convent of St. Bartholomew, and held within the churchyard: the other granted to the City of London for cattle and goods, held in the field of West Smithfield. For many years, the Fair lasted fourteen days, and was a great source of revenue to the Corporation: in 1735, it was restricted to three days, and it now extends but to one day.

Holy Rood, or Holy Cross Day, (September 14), is still observed as a Holiday, to commemorate the recovery of the Cross, which had been carried away by the King of Persia when he plundered Jerusalem, and was brought back in triumph by the Emperor Heraclius.

Nothing was formerly customary throughout the country, on this day; and, for centuries past, the boys of Eton School have written verses, and had a holiday for nutting, in this month.

September 18th is kept as a Holiday; and the Salisbury Breviary has on this day: "Keep always the Fast of the 9th month."

St. Matthew's Day, (September 21), the Lord Mayor and Aldermen of London visit Christ's Hospital in state, when orations are delivered in the great Hall by the senior boys, who are qualifying for college. The suppers on Sundays in Lent, are other public sights of this Hospital, "the noblest Institution in the world."

Michaelmas Day (Sept. 29), was instituted in the year 487, to commemorate the Ministry of St. Michael and all Holy Angels, the messengers of good-will toward men. It is a Holiday at the Public Offices; and in the Court of Exchequer, there is on this day performed a ceremony, by one of the Aldermen of London, of chopping sticks and counting hob-nails, as suit and service of certain ancient tenures. The custom of eating goose on Michaelmas Day, has much exercised the ingenuity of antiquaries; and is traced by some to a goose being the dish before Queen Elizabeth, when the news was brought of the defeat of the Spanish Armada. A more probable reason is, that Michaelmas Day was a great festival, and geese were then most plentiful; and it being one of the quarters, or terms, for the payment of rents, a fat goose was the customary present, though, as it would appear, from the tenant to the landlord:—

And when the tenants come to pay their quarter's rent,  
 They bring some towle at Midsummer, a dish of fish at Lent  
 At Christmas a capon, at Michaelmas a goose,  
 And somewhat else at New Year's tide for Jaune their longer din to have.

A later poet says:—

At Michaelmas, by custom right divine,  
 Geese are ordained to bleed at Michael's shrine.

In the autumnal garden, the day is florally commemorated:—

The Michaelmas Daisy, among the dead weeds,  
 Blooms for St. Michael's valorous deeds.

Harvest-home customs still linger, though they scarcely deserve the name of that festival, when, as Pope says:—

Our rural ancestors, with little blest, Patient of labour when the end was rest, Indulged the day that housed their annual grain	The joy, their wives, and sons, and servants share, Ease of their toil, and partners of their care:
With feasts, and offerings, and a thankful strain;	The laugh, the jest, attendants on the bowl, Smoothed every brow, and opened every soul!

Hunting has now commenced: the welkin begins to ring with the music of hounds; and the sound of distant guns may be heard in a country of game. Hunting was formerly commenced at day-break:—

Oft listening how the Hounds and Horn Chcerly rouse the slumbering morn,	From the side of some hoar hill To the wild woods echoing shrill!
---	--

Somerville has left us an animated sketch of a morning in Autumn, preparatory to "throwing off the pack":

Now golden Autumn from her open lap Her fragrant bounties showers; the fields are shorn;	All now is free as air, and the gay pack In the rough bristly stubbles range unblamed, No widow's tears o'erflow, no secret curse Swells in the farmer's breast, which his pale lips, Trembling conceal, by his fierce landlord awed. But courteous now he levels every fence, Joins in the common cry, and halloo loud, Charmed with the rattling thunder of the field
--	--

Again:—

The horn sonorous calls, the pack awaked, Their matins chant.	And tail erect, neighing, he paws the ground, Pierce rapture kindles in his reddening eyes, And boils in every vein.
--	--

Our classic artist has depicted the host returned from sports with "hawk and hound," to witness the foot-ball match, first mentioned in the reign of Edward III. It was mostly played by "sturdie plowmen, lustie, strong, and bold;" or as the courtly Waller sings:—

A sort of lusty shepherds try Their force at foot ball, care of victory;	Makes them salute so rudely breast to breast, That their encounter seems too rough for jest.
---	---

Sometimes, pease and horse-beans were put into the ball, a blown bladder; and then,

It ratteth, soundeth, and shineth clear and gaye,	With foote and with hande the bladder for to smite;
While it is thrown, and caste up in the ayre, Each one contendeth and hath a great delite!	If it fall to the grounde, they lift it up agayne, And this waye to labour they comit no payne.

Formerly, money was given at weddings for foot-ball play; and about a century since, matches of foot-ball were played in the Strand, where the May-pole streamer flaunted in the breeze.



## SEPTEMBER.

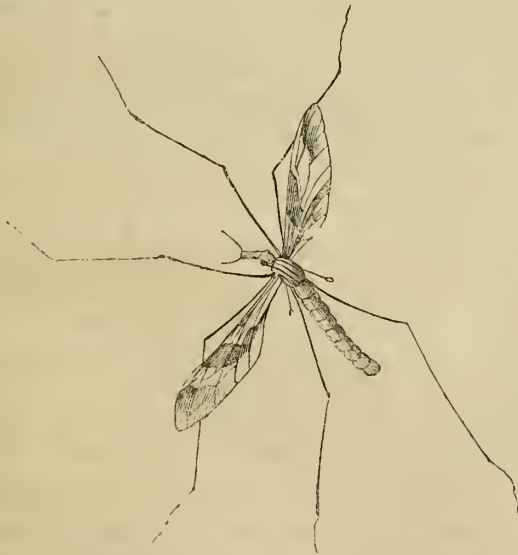
DURING this month, stone curlews clamour ; wood owls are noisy ; the flycatcher, black cap, nightingale, white throat, depart, and the woodcock returns, &c.

The partridge is in length about thirteen inches, and weighs about fifteen or sixteen ounces—the female about two ounces less ; the breadth, when the wings are spread, is about twenty inches ; the bill is hard, and light-brown ; the eyes are hazel, and they are partly surrounded by a warty skin, which is placed principally behind the eye, and continues nearly half round it ; the general colour of its plumage is brown and ash, elegantly mixed with black, and each feather is streaked down the middle with buff colour ; the chin, cheeks, and forehead are tawny, and being palest in the females. Between the eye and the ear is a portion of naked skin of a bright scarlet, which is not very conspicuous, except in old birds ; on the breast is a chesnut mark in the form of a horse-shoe (see the engraving) ; this the female wants for the first two years, but, after that time, it is not nearly so good a distinguishing mark as is the bare skin round the eye, which, in the female, always inclines to a dull crimson, and never to that bright scarlet which it does in the male. The legs are yellowish in the young, and, as they increase in age, become grey ; those of the male are furnished with a blunt spur or knob behind. The general colours are alike in both sexes. The age of partridges is discovered by the bill and legs ; and another method is, from the appearance of the last feather on the wing, which is pointed after the first moult, but in the following year is quite round. We may remark here, that the feathers on the body are double, two feathers proceeding from the same quill ; the inner one which is much the smallest, has two webs projecting from each side of the shaft.



COMMON PARTRIDGE.

Insects are still numerous ; moths, among which is the death's-head moth butterflies, beetles, grasshoppers, field bugs, and flies, abound. The caterpillar of the privet-hawk-moth may now be found on privet, and that of the glow-worm on



MALE CRANE-FLY : TIPULA HORTORUM.

heaths and banks. During this month, and the next, crane-flies are abundant, particularly in pastures, where they rise in swarms on being approached ; these creatures are found through the whole summer, but less numerous than they are

at this time. They are popularly termed daddy-long-legs, tailors, &c. ; and are often found of nearly an inch in length, from head to tail ; their bodies are very slender, and are composed of nine rings. The above is a drawing of the male, and the following is that of the female.



FEMALE CRANE-FLY : TIPULA HORTORUM.

Their bodies are of a brownish colour, and their corselets are so elevated, that they appear hump-backed ; the head is small, and the neck very short ; the eyes are so large that they nearly cover the whole surface of the head. Each ring of the body is composed of two half cylinders, which are joined into one by means of a membrane, which gives them room to extend them or to close them at will. The horn at the extremity of the tail is the characteristic of the female, by means of which it deposits its eggs a short depth in the ground. It is curious to see them thus engaged, the body being vertical and moves up and down each time an egg is deposited, of which each female lays several hundred, passing over a considerable distance during the operation.

The beauties of Autumn, during this month, may be expected, and the beautiful tints on the foliage of trees and plants, cannot escape the most casual observer.

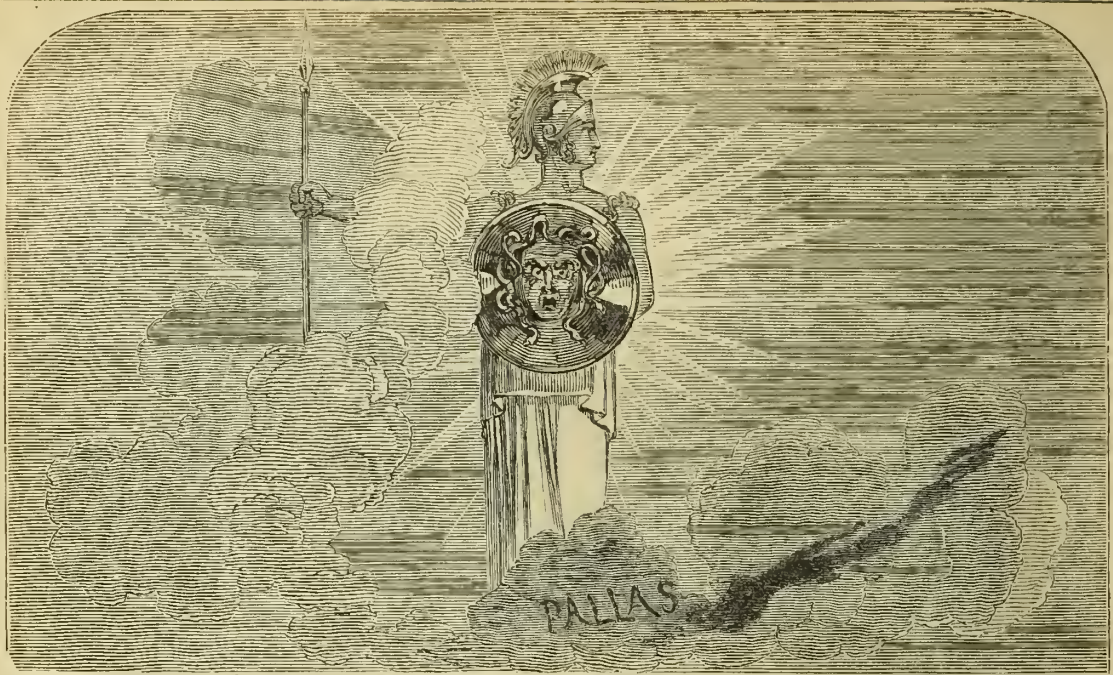
Autumn tinges every fertile branch  
With blooming gold and blushes like the morn.—AKENSIDE.

In the month of July, we spoke of one species of fungus, the order is divided into many sections. That called Agaricus, is distinguished by the under part of the cap having parallel plates, called gills, within which the seeds are placed. That called Boletus, has tubes or circular cells instead of gills. And it is this striking difference that distinguishes it from the mushroom. The boletus, too, is of a circular form ; the puff ball is well known, and it has its seeds internally. There are nearly three hundred different species of agarics in this country ; of all these, one only has been selected for cultivation in our gardens, the "agaric campestris," or common mushroom. The gills are loose, pinky red, changing to a liver colour, in contact with the stem, but not united to it. Very thick set ; the gills are white, changing to brown when old, and becoming scanty ; regularly convex ; fleshy, flatter with age ; from two to four inches, and sometimes more, in diameter, liquefying in decay ; the flesh white ; the stem solid, white, and cylindrical, from two to three inches high, half an inch in diameter. When the mushroom first makes its appearance, it is smooth and nearly globular, and in this state it is called a button. Annexed is a drawing of the species agaric.



MUSHROOM : AGARIC.





M	D	W	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN.				MOON.				High Water at London Bridge.		Equation of Time.		Day of the Year
				Rises—R.	Declina- tion—S.	South.	Age	Rises—R.	South.	Age	Morning.	Afternoon.	u.	M.	u.	
1	TH		Pheasant shooting begins	6 1 <sup>R</sup>	3 9			Morning.	9 6	11		10 21	11 2		10 15	274
2	F		London University opened, 1828	5 38 <sup>S</sup>	3 32			2 38 <sup>S</sup>	10 1	12		10 37			10 34	275
3	S		King's College opened, 1831	6 5 <sup>R</sup>	3 55			3 59 <sup>S</sup>	10 56	13		0 6	0 35		10 53	276
4	S		17TH SUNDAY AFTER TRINITY	5 32 <sup>S</sup>	4 18			4 19 <sup>S</sup>	11 50	○		0 59	1 23		11 12	277
5	M		Old Parr died 1635, aged 152	6 9 <sup>R</sup>	4 41			Afternoon.	Morning.	15		1 46	2 8		11 30	278
6	TU		Mercury rises at 5h. 57m. A.M., midway between	5 27 <sup>S</sup>	5 5			6 18 <sup>R</sup>	0 45	16		2 30	2 52		11 47	279
7	W		Zimmerman died, 1795 [the E. and E. by S.	6 12 <sup>R</sup>	5 28			6 54 <sup>R</sup>	1 39	17		3 14	3 34		12 5	280
8	TH		Venus rises at 4h. 30m. A.M. near the E.	5 22 <sup>S</sup>	5 51			7 38 <sup>R</sup>	2 34	18		3 56	4 16		12 22	281
9	F		St. Denys—Mars rises at 5h. 14m. A.M. near the E.	6 16 <sup>R</sup>	6 14			8 26 <sup>R</sup>	3 28	19		4 36	4 57		12 38	282
10	S		Oxford and Cambridge Michaelmas Terms begin	5 18 <sup>S</sup>	6 36			9 18 <sup>R</sup>	4 20	20		5 16	5 38		12 54	283
11	S		18TH SUNDAY AFTER TRINITY	6 19 <sup>R</sup>	6 59			10 13 <sup>R</sup>	5 11	21		6 0	6 24		13 9	284
12	M		Jupiter rises at 7h. 35m. P.M. near N.E.	5 13 <sup>S</sup>	7 22			11 13 <sup>R</sup>	5 59	22		6 50	7 18		13 25	285
13	TU		Length of Day 10h. 49m.	6 22 <sup>R</sup>	7 44			Morning.	6 46	23		7 49	8 29		13 39	286
14	W		Saturn sets at 1h. 2m. after midnight, near W.S.W.	5 8 <sup>S</sup>	8 7			0 15 <sup>R</sup>	7 31	24		9 10	9 49		13 53	287
15	TH		Murat shot, 1815	6 25 <sup>R</sup>	8 29			1 16 <sup>R</sup>	8 14	25		10 28	11 3		14 6	288
16	F		Houses of Parliament burnt, 1834	5 4 <sup>S</sup>	8 51			2 20 <sup>R</sup>	8 57	26		11 36			14 19	289
17	S		Uranus sets at 5h. 24m. A.M. a little N. of E.	6 28 <sup>R</sup>	9 13			3 22 <sup>R</sup>	9 39	27		0 3	0 25		14 31	290
18	S		19TH SUNDAY AFTER TRINITY—St. Luke the	5 0 <sup>S</sup>	9 35			4 26 <sup>R</sup>	10 22	28		0 44	1 3		14 43	291
19	M		Evangelist.—A festival of the Church of England. This day was appointed to be St. Luke's festival, in the twelfth century.	6 31 <sup>R</sup>	9 57			5 32 <sup>R</sup>	11 6	29		1 20	1 37		14 54	292
20	TU		Battle of Navarino, 1827	4 56 <sup>S</sup>	10 19			6 32 <sup>R</sup>	11 52	30	●	1 53	2 8		15 4	293
21	W		Battle of Trafalgar, 1805—Nelson killed	6 34 <sup>R</sup>	10 40			Afternoon.	Afternoon	1		2 26	2 44		15 14	294
22	TH		Irish Massacre, 1641—40,000 killed	4 52 <sup>S</sup>	11 2			6 7 <sup>S</sup>	1 31	2		2 59	3 18		15 23	295
23	F		Royal Exchange founded, 1667	6 38 <sup>R</sup>	11 23			6 51 <sup>S</sup>	2 24	3		3 33	3 50		15 32	296
24	S		Mercury sets at 5h. 5m. P.M. near W.S.W.	4 47 <sup>S</sup>	11 44			7 43 <sup>S</sup>	3 18	4		4 9	4 26		15 39	297
25	S		20TH SUNDAY AFTER TRINITY—St. Crispin and	6 42 <sup>R</sup>	12 5			8 43 <sup>S</sup>	4 13	5		4 45	5 6		15 46	298
26	M		St. Crispinian were two Roman youths, brothers, who in the third century went as Christian Missionaries to France, and preached for some time at Soissons. They supported themselves by working at the trade of a shoe-maker by night, while they preached during the day.	4 43 <sup>S</sup>	12 25			9 51 <sup>S</sup>	5 9	6		5 28	5 50		15 53	299
27	TU		St. Simon and St. Jude—a festival of the English	6 46 <sup>R</sup>	12 46			11 4	6 4	7	☾	6 18	6 45		15 58	300
28	W		Church. Simon remained with the other apostles till after the Pentecost; it has been surmised that he visited Britain and there suffered martyrdom. Jude, otherwise called Thaddeus, suffered martyrdom in Persia.	4 39 <sup>S</sup>	13 6			Morning.	6 58	8		7 17	7 56		16 3	301
29	TH			6 50 <sup>R</sup>	13 26			0 19 <sup>S</sup>	7 51	9		8 38	9 20		16 7	302
30	F			4 36 <sup>S</sup>	13 46			1 36 <sup>S</sup>	8 44	10		10 10	10 40		16 11	303
31	S		All Hallows Eve—Hare Hunting begins	6 53 <sup>R</sup>	14 6			2 57 <sup>S</sup>	9 36	11		11 14	11 45		16 14	304

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee) from the Earth, in each Lunation.	Days of the M.	MERCURY.				VENUS.				MARS.				JUPITER.				SATURN.				URANUS.			
		Right Ascension.	Declination.	Right Ascension.	Declination.	Right Ascension.	Declination.	Right Ascension.	Declination.	Right Ascension.	Declination.	Right Ascension.	Declination.	Right Ascension.	Declination.	Right Ascension.	Declination.	Right Ascension.	Declination.	Right Ascension.	Declination.				
Full Moon	4th 10h. 6m. P.M.	1	12h. 13m.	0° 21'N	11h. 22m.	5° 58'N	12h. 5m.	0° 30'N	5h. 2m.	22° 0'	21h. 50m.	14° 47'	0h. 47m.	4° 16'											
Third Quarter	12th 4 8 A.M.	6	12 45	3 31S	11 45	3 13N	12 16	0 49S	5 2	22 0	21 50	14 51	0 46	4 11											
New Moon	20th 7 44 "	11	13 16	7 16S	12 8	0 46N	12 28	2 8S	5 2	22 0	21 49	14 54	0 45	4 7											
First Quarter	27th 3 10 P.M.	16	13 47	10 49S	12 31	1 42S	12 40	3 26S	5 2	21 59	21 48	14 56	0 45	4 2											
Perigee	3 7 A.M.	21	14 17	14 6S	12 54	4 10S	12 52	4 44S	5 0	21 58	21 48	14 58	0 44	3 58											
Apogee	15 6 "	26	14 47	17 4S	13 17	6 37S	13 4	6 2S	4 59	21 56	21 48	14 58	0 43	3 53											
Perigee	31 4 "	26	14 47	17 4S	13 17	6 37S	13 4	6 2S	4 59	21 56	21 48	14 58	0 43	3 53											



## OCTOBER.

During the month of October, Saturn is the only Planet favourably situated in the evening for observation; it can be readily found all the month, by conceiving an imaginary line drawn from  $\gamma$  Aquilæ, through  $\beta$  Aquilæ—(See September)—continued to the distance of about 32 degrees from  $\alpha$  Aquilæ; Saturn is preceded by two Stars of the 3rd. magnitude, and there are no other Stars so bright as the 3rd magnitude near him. Persons who are not accustomed to Angular Measure, may estimate the distance from  $\alpha$  Aquilæ to the Planet with great exactness, or any other distance expressed in degrees, by the following considerations. The distance between the pointers of the Pole Star, is 5 degrees—(See January.) The distance between the Pole Star and the Pointer nearest to it is 29 degrees. The distance between the three Stars in Orion—(See March)—is just 3 degrees, there being very nearly  $1\frac{1}{2}$  degrees between  $\epsilon$  Orionis, the central Star, and the one on each side of it; the distance of  $\alpha$  Orionis, from  $\gamma$  Orionis, in the same engraving, is 8 degrees; the distance between  $\alpha$  Lyre and  $\alpha$  Aquilæ, is 35 degrees; the distance between  $\alpha$  Aquilæ, and  $\alpha$  Cygni, is 38 degrees; and by considering that the diameters of the Sun, and of the Moon, are each about half a degree, a very correct idea of the extent of space expressed by degrees, may be thus attained.

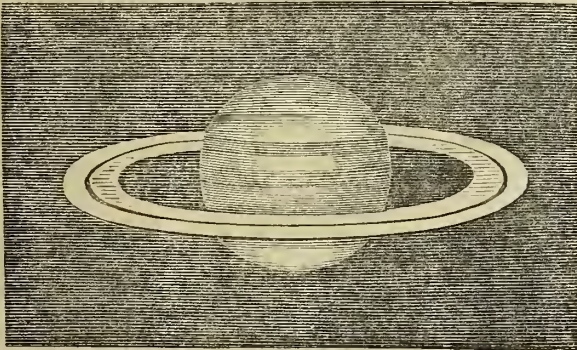
The Planet, Saturn, is distinguished from the other Planets, by being surrounded by a luminous double ring of great extent, and in consequence presenting some of the most curious phenomena in the heavens.

This ring sometimes appears continuous all round the body of the Planet; at other times the body of the Planet appears to repose between its extremities; and at other times he appears as other Planets do, without any ring whatever.

The ring is at a considerable distance from the body of the Planet, and is only luminous in consequence of its reflecting the Sun's rays; it is plain, therefore, that it cannot be visible when the Sun is on one side of it, and the Earth on the other; for then the observer on the Earth, would be looking at the dark side of the ring. It is, therefore, necessary for both the Sun and the Earth to be on the same side of the ring, to enable us to see it. It is also invisible at other times, first, when its edge is towards the Earth, for then none of its reflected light can reach us; and secondly, when its edge is towards the Sun, for the edge then can only be illuminated; the ring being very thin, the quantity of reflected light from its edge will scarcely render it visible.

Twice in each of Saturn's revolutions, that is, in 29 years, 5 months, and 14 days, the edge of the ring is towards the Earth, and, consequently, invisible to us.

During the present month the Sun and the Earth are on the same side of the ring, and the ring presents its North side towards us, and its appearance is represented in the following engraving.



TELESCOPIC APPEARANCE OF SATURN DURING THE YEAR 1846.

This month will be the best to observe the Planet for some years. Next year the ring will be so placed that we shall see less of it, and in a part of the year 1848, it will be invisible; afterwards it will show its Southern side.

The distance of Saturn from the Sun is about 900 millions of miles, and the Sun, as viewed at that distance, covers a space in the heavens of only about one-eightieth of that which the Sun appears to us to cover; and, consequently, Saturn derives but one-eightieth part of the light and heat that we do. The time of his revolution on his axis is 10h. 16m.; the Sun, therefore, returns more than twice as soon to the Meridian of any place on his surface, as he does to any place on the Earth's surface; and the deficiency of light is abundantly supplied by the reflected ring. The Planet is attended by seven Satellites, but three only can be seen by powerful telescopes; the reflected light from the Satellites and the ring must be considerable.

The distance of the nearest part of the ring to the body of Saturn is 13,000 miles; the breadth of the interior ring is 17,176 miles; the space between the rings is 1,791 miles, and the breadth of the exterior ring is 10,573 miles, according to the micrometrical measures by Professor Struve. The thickness of the ring is less than 100 miles—(See *Memoirs of the Astronomical Society*, Vol. III., page 301.) The diameter of the Planet is 79,160 miles. The ring, therefore, in width is more than one-third of the diameter of the Planet, and its thickness is scarcely discernible, so that, at times, when the edge of the ring is towards the Earth, a dark line only appears across the Planet.

Mercury rises in E. by N. on the 1st day, at 5h. 31m. A.M., and he is situated about  $2^{\circ}$  S. of Regulus. On the 15th day he rises in the E.S.E. at 6h. 54m. A.M.; the Sun will have been, however, above the horizon at this time 27m.; he will set in the W.S.W. at 5h. 18m., being about 14m. after the Sun, so that this time is very unfavourable for seeing him, and it continues unfavourable during the remainder of the month.

Venus rises in the E. by N. point of the horizon on the 1st day at 4h. 11m. A.M., and she with  $\beta$  Leonis and Regulus form a triangle, being  $11^{\circ}$  S.S.E. from  $\beta$  Leonis, and  $22^{\circ}$  W. of Regulus. On the 15th day she rises in the E. at 4h. 54m. A.M.; she is situated nearly in a line with  $\beta$  Leonis and  $\alpha$  Virginis, and close to that remarkable double star  $\gamma$  Virginis; being  $15^{\circ}$  from  $\alpha$  Virginis, and  $20^{\circ}$  from  $\beta$  Leonis. On the last day of the month she rises in the E. by S. at 5h. 45m. A.M., and she is situated about  $6^{\circ}$  W. of  $\alpha$  Virginis.

Mars rises at the beginning of the month in the E., and towards the end of the month in the E. by S. points of the horizon; on the 1st day at 5h. 17m. A.M.; on the 15th day at 5h. 14m. A.M., and the last day at 5h. 12m. A.M. On the 1st day he is situated in a line drawn from the Pole Star through  $\delta$  Ursæ Majoris (See January) continued to  $89^{\circ}$  from the Pole Star, or to a point  $11^{\circ}$  S.S.W. of  $\beta$  Leonis; on the 15th day he is situated in a line from the Pole Star through  $\epsilon$  Ursæ Majoris to  $93^{\circ}$  from the Pole Star; and he is nearly in a line with  $\alpha$  Virginis and  $\beta$  Leonis, being  $11^{\circ}$  from  $\alpha$  Virginis, and  $24^{\circ}$  from  $\beta$  Leonis. On the last day of the month he is about  $3^{\circ}$  N. of  $\alpha$  Virginis.

Jupiter rises in the N.E. by E. throughout the month at 8h. 14m. A.M. on the 1st day; at 7h. 19m. A.M. on the 15th day; and at 6h. 12m. A.M. on the last day.

The following is the position of the Constellations, that are rising; on the meridian; and setting on the 1st day at midnight.

Constellations Rising.	Constellations on the Meridian.	Constellations Setting.
Leo Minor in N.N.E.	$\epsilon$ Ursæ Major $18^{\circ}$ above N. of horizon	Corona Borealis in N.W. by N.
Cancer in N.E. by E.	Draco $30^{\circ}$ above N. of horizon	Herculis in N.W. by W.
Canis Minor in E. by N.	Cassiopeiæ between Polaris and the Zenith	Ophiuchus in W.N.W.
Monoceros in E.	Andromeda $15^{\circ}$ S. of the Zenith	Capricornus in W.S.W.
Orion in E. S. E.	Pisces $65^{\circ}$ above the S. horizon	Pisces Australis in S.W. by S.
Lepus in S.E. by E.	Cetus $20^{\circ}$ above the S. horizon	

## ASTRONOMICAL OCCURRENCES IN OCTOBER.

PLANETS.				JUPITER'S SATELLITES.		OCULTATION OF STARS BY THE MOON.		
Names	Time of passing the Meridian or South, on the 15th day	When near the Moon	Angular distance from the Moon North or South	Eclipses of		Names of the Stars	Time of disappearance and re-appearance of the Star	At the dark or bright limb of the Moon
				1st. Sat.	2nd. Sat.			
	H. M.	D. H.	DEG.	Immersion	Immersion			
Mercury . . .	0 6 P.M.			D. H. M. 1 11 26 P.M.	D. H. M. 3 9 20 P.M.	119 Tauri	D. H. M. 9 10 24 P.M.	Bright
Venus . . .	10 52 A.M.	19 4 A.M.	3 North	9 1 20 A.M.	10 11 57 "		9 11 0 "	Dark
Mars . . .	11 3 "	19 6 A.M.	2 North	16 3 13 "	25 5 11 "	120 Tauri	9 10 52 P.M.	Bright
Jupiter . . .	3 29 "	9 2 P.M.	3 North	17 9 42 P.M.	3rd. Sat. Immer. and Emer.		9 11 46 "	Dark
Saturn . . .	8 13 P.M.	1 11 "	7 South	23 5 7 A.M.	23 9 26 P.M.	$\chi$ Geminorum.	11 10 56 P.M.	Bright
Uranus . . .	11 8 "	5 1 A.M.	2 South	24 11 36 P.M.	23 11 42 P.M.		11 11 41 "	Dark
					31 1 26 P.M.			
					31 3 43 A.M.			

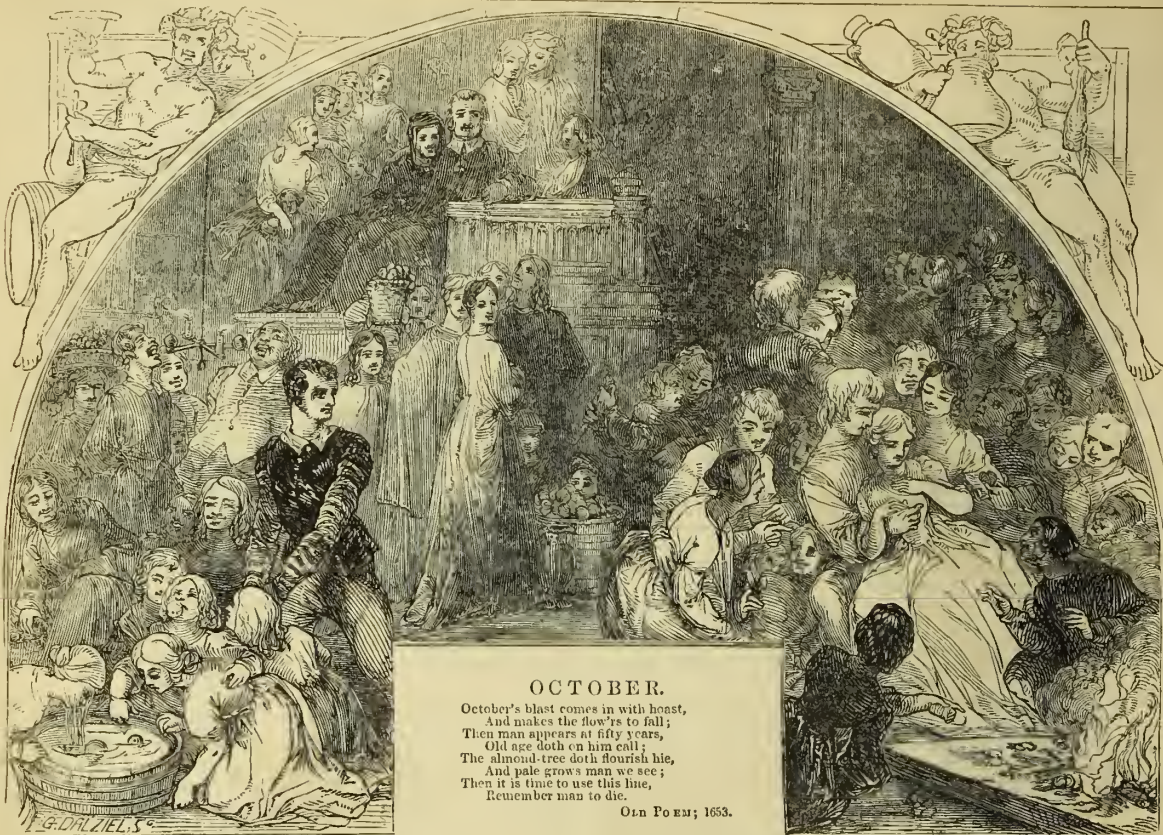
October 4th. Jupiter's Satellites all from East of the Planet, and on the 14th. day West of him, at about 4h. in the morning.

October 7th. 11h. P.M., Mercury in superior conjunction with the Sun—(See September)

October 19th., the Sun Eclipsed; but it is not visible in the British Isles.

October 28th. 6h. A.M., Mercury at his greatest distance from the Sun.





## OCTOBER.

October's blast comes in with hoast,  
And makes the flow'rs to fall;  
Then man appears at fifty years,  
Old age doth on him call;  
The almond-tree doth flourish hie,  
And pale grows man we see;  
Then it is time to use this line,  
Remember man to die.

OLD POEN; 1653.

## THE HOST AND HIS FAMILY SPECTATORS OF THE MYSTERIES OF ALLHALLOWEEN EVEN.

OCTOBER, though from the age of Numa it has been the tenth month of the year, derives its name from its original position in the Alban Calendar; being compounded of *Octo*, eight; and *imber*, a shower. The Saxons called it *Wyn Monath*, or the Wine-Month; and also, *Wynter-Fyllyth*, from the approach of Winter.

*St. Denis*, (October 9), is the tutelary Saint of France: his reliques are enshrined in the superb abbey-church near Paris.

*St. Wilfrid*, (Oct. 12), was Archbishop of York, and founded the monastery of Ripon, where his body was buried, in 709, in the church of St. Peter: he is reputed to have invented the gamut; and his Festival is annually kept at Ripon on the Sunday after Lammas Day, on the eve of which feast is a procession, in which the fiddle is not forgotten.

*St. Ethelburgh's Day*, (Oct. 11), was formerly a monastic and rural feast: amidst the annual store of provision at Barking Nunnery, occurs "wheat and milk for Frimitey, (Furmety,) upon St. Alburg's, (St. Ethelburgh's,) Day."

*St. Luke*, (October 18), is the patron of painters, from his reputed skill in painting, especially in portraits of Our Saviour: the usual oath of King William Rufus was by the face of Christ, depicted by St. Luke. His day is still kept at the Public Offices.

*S. S. Crispin and Crispian's Day*, (October 25), is but slightly observed. Shakspeare has perpetuated the memory of this Festival by the speech which he has given to Henry V., before the battle of Agincourt:—

This day is called the Feast of Crispian:  
He that outlives this day, and comes safe home,  
Will stand a-tiptoe when this day is named,  
And rouse him on the name of Crispian:  
He that shall live this day, and see old age,  
Will yearly, on the vigil, feast his neighbours,  
And say to-morrow is St. Crispian.

Both Saints are said to have been Romans of noble family, put to death in the persecution under Diocletian, at Soissons, in Ganl. Their bodies were afterwards translated to Rome, and interred in St. Lawrence's church; they are, also, traditionally stated to have been buried near Lydd, in Kent, where a heap of stones is to this day called "Crispin's Grave."

*St. Simon and St. Jude's Feast*, (October 28), was superstitiously considered rainy, as well as that of St. Swithin; and this, probably, because the autumnal rains began on or about that day. In an old play occurs: "I know it as well as I know 'twill rain on Simon and Jude's Day." In another old play occurs: "Now a continued Simeon and Jude's rain beat all your feathers as flat down as pancakes." And, we learn from Holinshed that, in 1536, when a battle was appointed to have been fought upon this day between the King's troops and the Rebels in Yorkshire, that so great a quantity of rain fell upon the eve thereof, as to prevent the battle from taking place.

*Allhalloes Even*, (October 31), the great festival of the month, the vigil of All Saint's Day, with all its revels, is depicted by our artist. Here is the sport of flinging nuts into the fire, to propitiate omens touching matrimony; when, if the

nuts lie still, and burn together, they prognosticate a happy marriage or hopeful love; if, on the contrary, they bounce, and fly asunder, the sign is unpropitious: such is the custom in the North, where it is called Nutcrack Night; in Ireland there is a similar custom: and Burns has commemorated its "sports, cheep and cheery" in the West of Scotland:—

Some merry, friendly, countra focks  
Together did convene  
To burn their nits, and pou their stocks,  
And baud their Halloween  
Fu' blythe that night.

Another sport was to dive for apples, and to catch at them when stuck upon the ends of a stick, crossed by another with lighted candles at the ends; and that with the mouth only, their hands being tied behind the players' backs. There were also on Allhalloes E'en, various divinations, eating the apple at the glass, running round the stack three times, bonfires, ringing of bells, and feasting.

With this month begins *Pheasant-shooting*, of which Pope has given a touching picture:—

See! from the brale the whirring pheasant  
springs,  
And mounts exulting on triumphant wings:  
Short is his joy, he feels the fiery wound;  
Flutters in blood, and panting heats the ground,  
Ah! what avail his glossy varying ayes,  
His purple crest, and scarlet-circled eyes;  
The vivid green his shining plumes unfold,  
His painted wings, and breast that flames  
with gold!

Change, the characteristic of Nature, is never better seen than in this month, lecturing us with its scenes of falling grandeur. Dr. Johnson revelled in these meditative musings, from Pope's translation of Homer:—

Like leaves on trees, the race of Man is found,  
Now green in youth, now withering on the ground;  
Another race the following Spring supplies,  
They fall successive, and successive rise;  
So generations in their course decay,  
So flourish these when those are passed away.

The Swallow has now left us, having staid:—

Till frowning skies began to change their cheer,  
And time turn'd up the wrong side of the year;  
The shudd'ring trees began the ground to strow  
With yellow leaves, and bitter blasts to blow:  
Such auguries of winter thence she drew,  
Which by instinct or prophecy she knew;  
When prudence warn'd her to remove her kins,  
And seek a better heaven and warmer climes.  
DAVIDES.

At the close of the month begins Hare-hunting; Thomson has stigmatised this sport as "the savage soul of game:"

Poor is the triumph o'er the timid Hare!  
O'er a weak, harmless, flying creature, all  
Mix'd in sad tumult, and discordant joy.

Winter is now approaching:—

October winds, wif biting breath,  
Now up the leaf that's yellow fading;  
Nae gowans glint upon the green,  
Alas! they're co'erd wi' winter's deadning.  
As through the woods I musing gang,  
Nae hurdles cheer me frae the bushes,  
Sae little Robin's lanchy sang,  
Wild-warbling where the burnie gushes.  
J. SCADLOCK. L. T.



## OCTOBER.

SEVERAL migratory birds leave this month; the redwing, fieldfare, royston crow, wood pigeon, and snipe, arrive; broods of goldfinches appear, &c.

The goldfinch is in length nearly five inches; and weighs about an ounce; its bill is white with a blackish tip, and of a conical form; the forehead and throat are of a rich scarlet colour, with a black line passing between them from the bill to the eyes, which are black; the cheeks and the lower part of the neck white; top of the head black, which extends downwards, and divides the white on the cheeks from the white spot on the hinder part of the neck. The whole of the upper parts with the sides of the breast are of a bright yellowish brown; belly white; wings black, marked in the middle of each feather with gamboge yellow; rump whitish; six middle tail feathers, black with white tips; legs slender and of a pale brown.



THE GOLDFINCH.

The colours nearly similar in both sexes; those of the female are scarcely so vivid, and the wing coverts are inclined to brown. This bird is well known, and highly esteemed in every part of the kingdom, and it is very common throughout the country. The Count de Buffon says:—Beauty of plumage, melody of song, sagacity, and docility of disposition, seem all united in this charming little bird, which, were it rare, and imported from a foreign country, would be more highly valued; these qualities, together with its natural hardiness of constitution, all combine to make it a general favourite.

Its song, which may be heard at almost every season of the year, is brisk, lively well kept up, and extremely musical and cheerful.

The goldfinch's nest is a very beautiful structure; it is externally formed of moss, dry grass, and lichens; and lined with the down of thistles, hair, and wool. It usually lays four or five eggs, of a bluish-white colour, slightly spotted with dark purple at the largest end.



THE BULLFINCH.

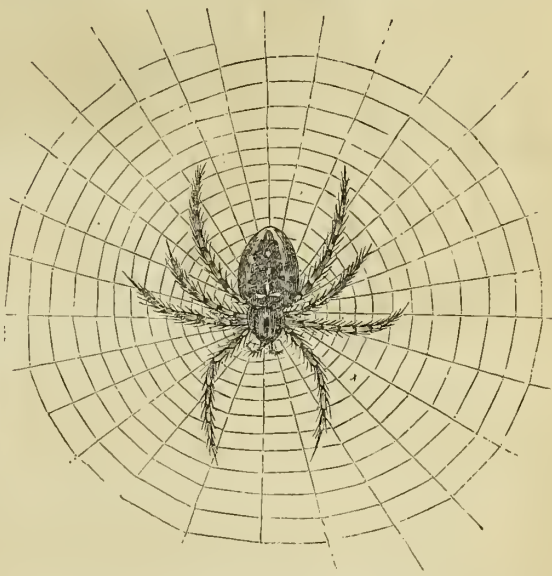
The bullfinch is in length six inches; in breadth, when its wings are spread, about ten inches; and weighs near three-quarters of an ounce; bill short, very strong, and dusky. The upper mandible is much hooked, and sharp pointed; eyes large and black; the upper part of the head, and the ring round the bill, are of a fine glossy black; the back ash colour, the breast and belly red, wings and tail black, legs slender and dark brown, claws long and curved, colours very

similarly disposed in both sexes. Those of the female are less bright, and the under parts of a reddish brown. Both sexes are very subject to alter in the colours of their plumage, frequently becoming quite black when kept in confinement.

The note of this bird is soft, and is far from unpleasant. It is so low that it frequently escapes observation. When confined it may be taught to whistle a variety of tunes; its note is usually called piping.

Spiders abound on every shrub; and when we consider that the spider is destitute of a distinct head; without horns; one half of its body attached to the other by a very slender connexion, and so soft as not to bear the least pressure; its limbs so slightly attached to its body that they fall off at a very slight touch; it appears ill adapted either to escape from danger which threatens it on all sides, or to supply itself with food; the economy of such an insect deserves notice.

They have usually five teats at the extremity of the abdomen, whose apertures they can enlarge or contract at pleasure. It is through these apertures a gummy fluid exudes, and it is of a yellow colour in the common garden spider, which we have delineated below. From each of these teats they discharge a thread. The first object a spider has to accomplish, is to attach its thread to some object, as the commencement of the ground work for its future operations. The web of the most common of the spider construction in this country, is that of the diadema, the common garden spider; its web consists of lines diverging at equal distances from the centre, which are then connected by a series of transverse bars; spiders in general station themselves at the centre of their webs, with their heads downwards. Annexed is a drawing of the garden spider in its web.



THE GARDEN SPIDER IN ITS WEB.

The colour is reddish brown, abdomen round, and marked with white spots in the form of a cross. The body varies much in colour from a darker to a lighter reddish-brown. The position of its eyes is . . . . . It has eight legs. There are above a hundred species of this genus, which are separated into distinct sections, according to the number and position of their eyes.

In forming this web, the top line is first spun, the other outer threads of the frame-work are then added, and a cross line is then carried from one point of the web to another, exactly opposite. From the middle of this cross line, the insect ascends or descends, having first glued another thread at the centre, which it attaches to the outer lines, and then, going along the latter to a certain distance, it fastens the thread to one of the outer or frame lines. In this manner it constructs the diverging lines; next it attaches a thread to one of the lines proceeding from the centre, and then drawing it out with its hind legs, ascends along the line till it can lay hold of the next line, down which it descends, until it reaches a spot exactly opposite to where the thread was attached to the other line; it then quits its hold with the hind legs, and the thread is glued to the proper spot, and so on, till the whole web is completed. There are many other methods of weaving, peculiar to different species of spiders, and some that deserve particular attention. One other, that of the common house spider, we did intend to describe, but cannot do it for the want of room; but we would recommend our readers to notice it themselves.

During this month, there are but few additional flowers. We may enumerate the following—common ivy, on old walls; common pheasant's-eye, in cornfields; stinking geranium, by road sides; and even these few, towards the end of the month, soon fade away.

Fade, flowers! fade; nature will have it so;  
'Tis but what we must in our autumn do!  
And as your leaves lie quiet on the ground,  
The loss alone by those that lov'd them found;  
So in the grave shall we no longer lie,  
Miss'd by some few that lov'd our company:  
But some so like to thorns and nettles live,  
That none for them can, when they perish, grieve.—WALLER.





D	W	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	Sun.				Moon.				High Water at London Bridge.		Equation of Time.		Day of the Year.
			Rises—S.	Declina- tion—S.	South	Age	Rises—S.	Declina- tion—S.	South	Age	Morning	Afternoon	Subtract.		
1	S	21ST SUNDAY AFTER TRINITY— <i>All Saints</i>	6 56 <sup>R</sup>	14 25		12							16 15	305	
2	M	<i>All Souls</i> —Michaelmas Term begins	4 31 <sup>R</sup>	14 44		13	5 32 <sup>S</sup>	11 24		0 39	1 3	16 17	306		
3	Tu	Mercury sets at 4h. 52m. P.M.—Mars rises at	6 59 <sup>R</sup>	15 3		14	6 50 <sup>S</sup>		Morning.	1 25	1 48	16 17	307		
4	W	King William III. landed, 1688 [5h. 12m. A.M.]	4 27 <sup>S</sup>	15 22		15		0 18		2 11	2 32	16 16	308		
5	Th	The Anniversary of the Discovery of the Gun-	7 2 <sup>R</sup>	15 40		16	6 13 <sup>R</sup>	1 13		2 53	3 14	16 15	309		
6	F	powder Plot in 1605, celebrated in the Church of England by a form of prayer with thanksgiving; but the day is chiefly noted by the triumph of schoolboys over the effigy of Guy Fawkes	4 24 <sup>S</sup>	15 58		17	7 6 <sup>R</sup>	2 7		3 34	3 54	16 13	310		
7	S		7 6 <sup>R</sup>	16 16		18	8 0 <sup>R</sup>	3 0		4 14	4 33	16 10	311		
8	S	22ND SUNDAY AFTER TRINITY	4 22 <sup>S</sup>	16 34		19	9 1 <sup>R</sup>	3 50		4 52	5 14	16 6	312		
9	M	Lord Mayor's Day first instituted, 1453—Prince	7 9 <sup>R</sup>	16 51		20	10 2 <sup>R</sup>	4 39		5 33	5 54	16 1	313		
10	Tu	of Wales born, 1841	4 19 <sup>S</sup>	17 8		21	11 4 <sup>R</sup>	5 25		6 18	6 41	15 56	314		
11	W	<i>St. Martin's Day, or Martinmas</i> —Popularly this	7 12 <sup>R</sup>	17 25		22		6 9		7 8	7 29	15 49	315		
12	Th	is one of the most remarkable days in the year, especially in Scotland, where Whitsunday and Martinmas are the two great terms for leases and engage- ments of servants, the latter being that at which the occupation of farms usually commences. Martin is said to have been born in Lower Hungary,	4 16 <sup>S</sup>	17 41		23	0 6 <sup>R</sup>	6 52		8 13	8 52	15 42	316		
13	F	about 316, and to have originally been a soldier	7 16 <sup>R</sup>	17 58		24	1 8 <sup>R</sup>	7 34		9 27	10 2	15 34	317		
14	S		4 12 <sup>S</sup>	18 13		25	2 12 <sup>R</sup>	8 17		10 36	11 7	15 25	318		
15	S	23RD SUNDAY AFTER TRINITY—Venus rises at	7 20 <sup>R</sup>	18 29		26	3 17 <sup>R</sup>	9 1		10 37		15 15	319		
16	M	Rubens, the painter, born, 1577 [6h. 35m. A.M.]	4 10 <sup>S</sup>	18 44		27	4 22 <sup>R</sup>	9 46		0 2	0 24	15 4	320		
17	Tu	Length of day, 8h. 46m.	7 23 <sup>R</sup>	18 59		28	5 30 <sup>R</sup>	10 33		0 44	1 3	14 52	321		
18	W	Wolsley died, 1530, aged 59	4 8 <sup>S</sup>	19 13		29	6 40 <sup>R</sup>	11 24		1 24	1 43	14 40	322		
19	Th	Saturn sets at 10h. 43m. P.M.	7 27 <sup>R</sup>	19 28		30			Afternoon.	1 59	2 19	14 26	323		
20	F	Fleet Market opened, 1826	4 6 <sup>S</sup>	19 41		1	5 37 <sup>S</sup>	0 16		2 37	2 55	14 12	324		
21	S	Princess Royal born, 1840	7 30 <sup>R</sup>	19 55		2	6 35 <sup>S</sup>	1 12		3 15	3 33	13 57	325		
22	S	24TH SUNDAY AFTER TRINITY— <i>St. Cecilia</i>	4 3 <sup>S</sup>	20 8		3	7 41 <sup>S</sup>	2 8		3 53	4 13	13 42	326		
23	M	<i>St. Clement, Old Martinmas</i> — <i>St. Clement</i> is	7 33 <sup>R</sup>	20 21		4	8 53 <sup>S</sup>	3 4		4 34	4 56	13 25	327		
24	Tu	spoken of by St. Paul as one of his fellow-labourers. He is said to have been thrown into the sea with an anchor fixed about his neck	4 0 <sup>S</sup>	20 33		5	10 8 <sup>S</sup>	4 0		5 19	5 43	13 8	328		
25	W	<i>St. Catherine</i> —Jupiter rises at 4h. 28m. P.M.	7 36 <sup>R</sup>	20 45		6	11 25 <sup>S</sup>	4 54		6 9	6 39	12 50	329		
26	Th	Dr. Watts died, 1748, aged 76	3 57 <sup>S</sup>	20 57		7		5 47		7 6	7 41	12 31	330		
27	F	Hatfield House burnt, 1835 [5h. 8m. A.M.]	7 39 <sup>R</sup>	21 8		8	0 41 <sup>S</sup>	6 39		8 16	8 57	12 12	331		
28	S	Oliver Goldsmith born, 1731—Mars rises at	3 55 <sup>S</sup>	21 19		9	1 58 <sup>S</sup>	7 30		9 32	10 6	11 52	332		
29	S	ADVENT SUNDAY—Mercury sets at 4h. 53m. P.M.	7 42 <sup>R</sup>	21 29		10	3 15 <sup>S</sup>	8 22		10 44	11 19	11 31	333		
30	M	<i>St. Andrew</i> —Venus rises at 7h. 23m. A.M.	3 54 <sup>S</sup>	21 39		11	4 29 <sup>S</sup>	9 14		11 48		11 9	334		

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee) from the Earth, in each Lunation.	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declina- tion South.	Right Ascension.	Declina- tion South.	Right Ascension.	Declina- tion South.	Right Ascension.	Declina- tion North.	Right Ascension.	Declina- tion South.	Right Ascension.	Declina- tion North.
Full Moon 3d. 9h. 11m. A.M.	1	15h. 23m.	20° 16'	13h. 45m.	9° 28'	13h. 19m.	7° 34'	4h. 57m.	21° 53'	21h. 48m.	14° 53'	0h. 43m.	3° 48'
Third Quarter 10th 11 44 P.M.	6	15 53	22 17	14 9	11 45	13 31	8 49	4 55	21 50	21 48	14 56	0 42	3 44
New Moon 18 11 0 "	11	16 23	23 57	14 33	13 55	13 44	10 3	4 53	21 47	21 48	14 54	0 41	3 41
First Quarter 25 10 31 "	16	16 52	25 5	14 58	15 56	13 56	11 15	4 50	21 42	21 49	14 51	0 41	3 38
Apogee 12 2 A.M.	21	17 18	25 38	15 23	17 47	14 1	12 26	4 48	21 39	21 50	14 47	0 40	3 35
Perigee 25 10 P.M.	26	17 39	25 34	15 43	19 27	14 2	13 35	4 45	21 35	21 51	14 42	0 40	3 32

Note.—Wherever the symbols ° and ' are used throughout this Almanack, they are to be considered respectively as degrees and minutes of angular distance; for the method of estimating which, see October.

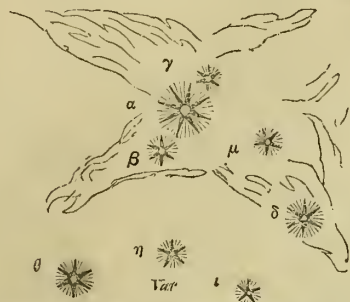


# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## NOVEMBER.

As the general phenomena during this month are very similar to those in the preceding and the following month, we shall proceed to explain the method of finding the principal stars visible in the evenings of the last months of the year.

The following is a representation of the positions of the stars in the constellation of Aquila, or the Eagle.



In the above drawing of the stars in the constellation Aquila, or the Eagle, a line from  $\theta$  through  $\beta$ ,  $\alpha$  and  $\gamma$ , leads to  $\alpha$  Lyræ a bright star a little S. of the Zenith; this line meets with two stars before it reaches  $\alpha$  Lyræ, near to each other; the higher of the two is  $\beta$  Lyræ, the other is  $\gamma$  Lyræ; the former of these two stars is variable in brightness, being at times much brighter than at other times.

The amount of its variability is from having the brightness of a star of the 3rd magnitude, it changes to that of the 5th magnitude, and then increases its brightness till it is of the 3rd magnitude again; the time of its passing from one of these states to that of the other is about 6d. 9h.

A line from  $\alpha$  Aquilæ through  $\alpha$  Lyræ leads to two bright stars N. of the Zenith, and whose distance from each other is  $4^2$ ; the most westerly one is  $\beta$  Draconis, the other is  $\gamma$  Draconis.

Near to the Zenith, but east of it, is the bright star  $\alpha$  Cygni. A line from  $\alpha$  Cygni through  $\alpha$  Lyræ leads to the Northern Crown, being six stars placed in a semi-circle; the brightest is  $\alpha$  Anoræ Borealis.

A line from  $\alpha$  Lyræ through the Northern Crown leads to the bright star Arcturus, a little North of West at the altitude of  $19^2$ .

A line from the Pole Star through  $\beta$  Draconis passes to two bright stars at the same elevation as  $\alpha$  Aquilæ; the one to the W. is  $\alpha$  Serpentis, the other is  $\alpha$  Ophiuchi.

East of the Pole Star is Cassiopeia; a line from the Pole Star through Cassiopeia leads first to  $\alpha$  Andromedæ, and below it to  $\gamma$  Pegasi; these two stars form nearly a square with two other bright stars at the same elevation as themselves; and to the right of them, the higher of those two stars is  $\beta$  Pegasi, and the lower is  $\alpha$  Pegasi.

Looking N.N. E. at the height of  $13^2$  is Capella; a little W. of it, but nearer the horizon, is  $\beta$  Aurigæ.

A line from  $\beta$  Aurigæ through Capella leads to  $\gamma$  Andromedæ, this line, a little bent downwards, leads to  $\beta$  Andromedæ, and continued onwards leads to  $\alpha$  Andromedæ.

A line from Capella to  $\gamma$  Andromedæ passes nearly midway between two bright stars; the upper one is  $\alpha$  Persei; the lower one is that very remarkable star  $\beta$  Persei (Algol); this star attains a maximum of brightness, and by degrees suffers a diminution of it. At its brightest it is as brilliant as a star of the 2nd magnitude, and after an interval of about 69 hours it appears to be of the 4th magnitude only; it then increases in brilliancy and becomes as bright as the 2nd

magnitude again. We may here remark that there are some stars which attain their greatest brightness and then gradually decrease in brilliancy till they disappear altogether; but the periods of these are very long. In every respect  $\beta$  Persei is one of the most remarkable of those variable stars, and persons by comparing its brightness with the brightness of other stars near it during a few nights cannot fail to observe these changes.

A little N. of East at an elevation of  $15^2$  is  $\alpha$  Arietis; closely following Aquila is a remarkable group of stars called Delphinus.

$\alpha$  Lyræ, with  $\alpha$  Cygni and  $\alpha$  Aquilæ form a remarkable triangle.

$\alpha$  Aquilæ through  $\delta$  Aquilæ leads to the bright star Antares.

Immediately under the Northern Crown are seven remarkable stars in the constellation of Serpentis.

The principal constellations now visible are the following:—

Under the Pole Star is the Lynx.

Between the Pole Star and the Zenith is a part of Draconis.

The Zenith is occupied by a part of Cygnus (the Swan)

Between the Zenith and Aquila is the head of the Swan.

Below Aquila is Sagittarius, and to the East of it is Capricornus.

In the N.N. E. is Auriga (the Kid.)

In the N.E. is Perseus, and above Perseus is Cassiopeia, the stars of which form the letter W. Between Cassiopeia and the Zenith is Cepheus.

In the N.W. is the Great Bear, and between that and the Zenith is Draconis.

From the Pole Star through Cassiopeia leads to Andromeda, then to Aries and below that to Cetus.

West of the Meridian is Lyræ near the Zenith. W. of Aquila are Hercules, Serpentis and Ophiuchus. The Northern Crown is about midway between the Zenith and the Horizon.

The stars will be in the positions here described, at 1h A.M., on the 1st day of July; at about 11h P.M., on the 1st day of August; at 9h P.M., on the first day of September; at a  $\frac{1}{2}$  after 7 on the 1st day of October; at a  $\frac{1}{2}$  after 5 on the first day of November. For a general reconnoitre of the heavens on any intervening day, subtract a portion of time from the time given for the first day of the month, equal to 4 minutes for every day after the first day of the month, so that if it be for the tenth day subtract 40 minutes.

In the month of March we traced the path of the Milky Way then visible; the other part of it can be traced in the latter months of the year as follows:—

It was mentioned that when it was at its extreme South position, it divided itself into two portions; starting from the Horizon, the eastern part passes the constellation Scorpio, the bow of Sagittarius through Aquila, and upwards to the Eastern part of Cygnus; the other passes a part of Scorpio, the right side of Ophiuchus through Cygnus, where the two divisions unite and from thence proceed to Cassiopeia. The whole of this vast space appears, when viewed through a telescope, to be covered with minute stars, which are scattered so thickly as to have the appearance of gold dust on a dark ground.

Between the 10th day and the 15th day of November, and particularly during the nights of the 12th and 13th, it is believed by many persons that there is a periodical return of meteors, exhibiting, as stated by some persons, a very extraordinary shower of shooting stars. By some persons it is believed that they wholly originate within the limits of our atmosphere; by others that they are heavenly bodies of inconsiderable dimensions. In order to decide as to which of these classes the meteors belong, it is manifest to that end the first step should be to discover at what distance from the Earth they take place.

In order to arrive at this, if two persons in different places should observe the same meteor, noting the time of its appearance and of its disappearance, or of the latter only, and indicating the star near which it came in sight and the star near which it was extinguished, the distance from the Earth can be calculated.

Persons who may observe the meteors on those nights, would do well to note their direction, their number in a given time, and, if possible, the time of the duration and the time of the extinction of each; and, in particularly remarkable ones, such as those which leave a train of sparks—those of different colours—to note the star near which they become extinguished.

## ASTRONOMICAL OCCURRENCES IN NOVEMBER.

PLANETS.				JUPITER'S SATELLITES.		OCULTATION OF STARS BY THE MOON.		
Names	Time of passing the Meridian, or Southing, on the 15th. Day	When near the Moon	Angular Distance from the Moon North or South	Eclipses of		Names of the Stars	Times of disappearance and re-appearance	At the dark or bright limb of the Moon
				1st. Sat.	2nd. Sat.			
				Immersion	Immersion			
Mercury . . .	H. M. 1 9 P.M.	D. H.	DEG.	D. H. M. 1 1 29 A.M.	D. H. M. 4 9 6 P.M.	$\delta^1$ Sagittarii	D. H. M. 22 4 28 P.M.	Dark
Venus . . .	11 16 A.M.			2 7 58 P.M.	11 11 43 "		22 5 40 "	Bright
Mars . . .	10 17 "	17 1 A.M.	$\frac{1}{2}$ North	8 3 23 A.M.	19 2 19 A.M.	$\beta^2$ Capricorni	23 5 47 "	Dark
Jupiter . . .	1 4 "	5 9 P.M.	3 North	9 9 51 P.M.	26 4 56 "		23 6 29 "	Bright
Saturn . . .	6 11 P.M.	25 11 A.M.	6 South	15 5 17 A.M.	29 6 14 P.M.			
Uranus . . .	9 3 "			16 11 26 P.M.				
				18 6 14 "				
				24 1 40 A.M.	3rd. Sat.			
				25 8 9 P.M.	7 5 26 A.M.			
					28 5 26 P.M.			

November 23d, 3h, A.M., Mercury's greatest East elongation being 22 deg.—(See September.)

November 3rd, 10th, and 23rd days, Jupiter's Satellites all four East of the Planet, and W. of him on the 11th day at about 2 o'clock in the morning.





## NOVEMBER.

November air untheth fields bare,  
Of flowers, of grass, and corn,  
Then man arrives at fifty-five,  
And sick both e'en and morn;  
Loins, legs, and thighs, with sad disease,  
Make him to sigh and say,  
Ah! Heaven on high have mind on me,  
And learn me how to die.

Old Poem; 1653.

PROVIDING FOR THE WANTS OF MARTINMAS AND THE COMING WINTER, DISPOSING OF STOCK, OR VICTUALLING FOR HOME CONSUMPTION; AND WITNESSING THE BULL-RUNNING.

NOVEMBER, the ninth (*Novem*) month in the Alban Calendar, became the eleventh by the insertion of January and February at the beginning of the year. Its name and term of thirty days have remained unchanged, while the other months have been lengthened and curtailed at pleasure. Our ancestors called it *Blot Monath*, from the Saxon *blotan*, to slay; for, in this month they killed and salted the *beeves*, *bacons*, and *muttons*, that were to furnish forth the Winter's hospitable board.

All Saints' Festival (Nov. 1.) or, as it was originally called, Allhallow Even Mass, was instituted by Boniface IV., when he obtained permission from the Emperor Phocas, to convert the Pantheon at Rome into a Christian church: it was ordered to be kept in memory of the Virgin and All Martyrs, on the 12th or 13th of May; but, three centuries later, it was transferred to November 1, and All Saints substituted for All Martyrs; this day being set apart for their general commemoration, so that none who deserve to be commemorated by the Church should be omitted. Bells used formerly to be rung on this feast, and on the Vigil throughout the night, when also bonfires were lit: it is still kept as a Holiday at the Public Offices.

"The memories of the Saints, (says the pious Jeremy Taylor,) are precious to God, and, therefore, they ought also to be so to us; and such persons who serve God by holy living, industrious preaching, and religious dying, ought to have their names preserved in honour, and God be glorified in them, and their holy doctrines and lives published and imitated: and we by so doing give testimony to the article of the communion of saints. \* \* \* The holiday is best kept by giving God thanks for the excellent persons, apostles, or martyrs, we then remember, and by imitating their lives: this all may do."

All Souls' Day, (Nov. 2.) is set apart by the Catholic Church for a solemn service for the repose of the dead: in this country, the day was formerly observed by ringing the passing bell, making soul cakes, blessing beans, and other customs. Various tenures, were held by services to be performed on this day.

The Landing of King William, (Nov. 4.) was formerly kept as a general Holiday, termed "Revolution Day." The centenary was celebrated with great pageantry in 1788, especially at Whittington, in Derbyshire, where the overthrow of James II. was plotted, in the "Revolution House."

Powder Plot, (Nov. 5.) is a parliamentary and general Holiday: it was appointed in 1605 as a day of thanksgiving, when all persons were required to go to church, "to give unto Almighty God thanks, and have in memory this joyful day of deliverance." In Spelman's time, the Judges went to church in state, on this day. Bishop Sanderson, in one of his sermons, says: "God grant that we nor ours ever live to see November the Fifth forgotten, or the solemnity of it silenced."

Lord Mayor's Day, (Nov. 9.) is still observed with a procession by land and

water, the only state exhibition in the metropolis that remains of the splendid City pageants.

Shakspeare has left us this picture of its glories:—

Suppose that you have seen  
The new appointed Mayor at Queens-tairs  
Embark his royalty; his own company  
With silken streamers, the young gazers  
pleasing  
Painted with different fancies;—have beheld  
Upon the golden galleries music playing,  
And the horns echo, which do take the lead

Of other sounds; now view the city barge  
Draws its huge bottom through the furrowed  
Thames,  
Breasting the adverse surge. O do but think  
You stand in Temple Gardens, and behold  
London herself, on her proud stream afloat;  
For so appears this fleet of magistracy,  
Holding due course to Westminster.—*Henry V.*

Martinmas, (Nov. 11.) was formerly kept with great feasting; one of the delicacies being a fattened goose. In some Church expences on this day, we find entries of "bred and drynke for the syngers," "rose garlands, wyne, and ale." Victualling, or laying in of meat, and curing it for winter consumption, was the business of this day.

Queen Elizabeth's Accession, (Nov. 11.) was long observed as a Protestant Festival; and with the Society of the Temple; the Exchequer; Christ's Hospital, Westminster, and Merchant Tailors' Schools; it is still kept as a Holiday.

St. Cecilia, (Nov. 22.) is regarded as the patroness of Music, her skill having been, traditionally, so great, that an angel who visited her, was drawn from the mansions of the blessed by the charms of her melody; to which Dryden alludes in his celebrated Ode to Cecilia. Milton has, also, some lines on this day, in his *Il Penseroso*. Concerts were common on St. Cecilia's Day, in the times of Dryden and of Pope.

St. Andrew, (Nov. 30.) is the tutelar Saint of Scotland: he suffered martyrdom on a cross in the form of an X; which is introduced as part of the insignia of the Scottish order of the Thistle. St. Andrew stands first among the Saints in the Prayer Book arrangement, because he first found the Messiah (John i. 18). Advent Sunday is, therefore, the Sunday nearest this Feast. St. Andrew's Feast is kept as a Holiday at the Bank, Customs, and Excise.

November was said by the ancients to be under the tutelage of Diana; from hunting and field-sports being general in this month. The cheerful and lively music of several packs of Harriers and of Beagles, in full cry, are now often heard, reminding us of

Thy hounds shall make the welkin answer them,  
And fetch shrill echoes from the hollow cars.—*SHAKESPEARE,*

Our artist has depicted the old barbarism of Bull-running, formerly practised in certain places, on the day six weeks before Christmas; as at Stamford and Tutbury. The hivie-skivie, and tag-and-rag of the scene are thus described in a ballad of the early part of the last century:—

Before we came to it, we heard a strange shouting,  
And all that were in it looked madly;  
For some were a Bull-back, some dancing a Morrice,  
And some singing Arthur O'Bradley!



## NOVEMBER.

BIRDS are generally mute during the month, except the robin, the wren, and the thrush, which frequently break out into song as in the summer. The goldfinch, also, may sometimes be heard, and as cheerily in the midst of fog as in the brightest sunshine.

The following birds assemble in numerous flocks—greenfinches, house-sparrows, skylarks, fieldfares, redwings, starlings, chaffinches, and the long-tailed titmouse.

During the month, the following birds may be expected to arrive from the North, or from the mountainous parts of the country. The stock-dove, the golden-plover, the widgeon, the Bohemian wax-wing, and the golden eye-duck.

The Stock-dove, or wild-pigeon, is in length fourteen inches, the bill red, and curved at the point; the head, neck, and upper part of the back, are of a blue-grey; the rump and belly grey, feet dull-red, and the claws black.

The Golden-plover is of the size of the turtle. Bill dusky, eyes black; all the upper parts of the plumage are marked with bright-yellow spots upon a dark-brown ground; the fore part of the neck and the breast are the same, but much paler; the belly is almost white; the quills are dusky; the tail is marked with dusky and yellow bars; the legs are black—(See *Bevier's British Birds*)

The Widgeon quits the desert morasses of the north on the approach of winter; in its general shape it much resembles the duck; its length is about twenty-three inches, and weighs about twenty-three ounces. The bill is narrow, about an inch and a half in length, of a bluish-lead colour, tipped with black. The crown of the head is of a cream colour; the rest of the head, the neck, and the breast, are chestnut; the belly to the vent is white, the ridge of the wing is ash-brown.

The Bohemian Wax-wing. This is a very beautiful bird; it is about eight or nine inches in length, and about three ounces in weight. The bill is black at the tip, the chin and throat are deep velvet-black. The feathers on the crown are long and silky. These birds sometimes appear in numerous flocks; and sometimes they are not seen for many years together. In 1810, they were numerous, and none were seen for ten or twelve years afterwards.

The Golden-eye Duck is named from the colour of the iris of the eye, which is very brilliant, of a bright-yellow colour, and shines like a spot of gold on the side of the head.



THE COMMON SNIFE.

The Common Snipe is very numerous during this month; it is about nine inches in length, exclusive of the length of the bill, which is three inches. Its breadth, in the stretch of its wings, is about fifteen inches. The weight, when full grown, is about a quarter of a pound. The bill is flattened, and of a dull-reddish colour at the base, yellowish in the middle; rough and brownish at the tip; it is generally very smooth in the living bird; but from its soft consistency, in consequence of containing more living substance than a hard bill, becomes shrivelled and loses its colour after death. The top of the head is of a russet colour, marked with three streaks of pale brown, that one, which is the best defined, passes over the middle of the head, and the others form a semi-circular band over each eye; from the gape over the eye, and down the side of the neck, runs a dark brown streak; from the corners of the mouth a dark brown mark extends nearly to the eye, and continued after it passes the eye; the chin, throat, and fore part of the neck, are of a very pale brown with irregular markings of a darker colour; and the rest of the under parts are white. The back is black, with reflections of green and brown. The feathers on the shoulders are elegantly striped lengthwise, and barred across with black and yellow; the wings are of a dusky brown; the quills are tipped with white; the tail is composed of fourteen feathers; the legs are slender, varying in colour in different subjects, some being of a light green, and others of a dark-slate colour; the toes are long, and delicately slender; the colour of the eyes is hazel, and are placed so far backwards in the head as to command the

whole horizon without turning. And it is in this that their safety lies, they being without any weapon of defence.

The bill is a very curious instrument, and seems to be possessed of a very keen sense of smell. They bore into the soft sludgy ground for some distance for their food, and as they bore directly down upon it, they must scent it from the surface. The head extends over the bill in all directions, and, therefore, its weight is always ready to assist the bill, in its lateral twistings, as it is bored into the sludge. Its food consists principally of small worms, and it is said also to eat slugs, which breed abundantly in its usual haunts.

The haunts of the snipe are in marshy places, and usually where there is an abundance of tall aquatic herbage to conceal themselves and their nests. In these places, when undisturbed, it is continually pacing the ground, with its head erect. And at short intervals it moves its tail from side to side. It is a shy bird, and extremely watchful; therefore, is difficult to approach. On perceiving the sportsman and his dog, which it does at a great distance, it immediately conceals itself among the variegated withered herbage, so similar in appearance to its own plumage, that it is almost impossible to discover it while squatting motionless in its seat.

When alarmed, the snipe utters a shrill whistle, and rises with considerable noise; it flies with great swiftness, and after having been roused two or three times, it is difficult to get within shot.

The snipe is migratory, and is met with in all countries. They leave Great Britain in the Spring, and return in the Autumn; it has been well ascertained that many remain and breed in various parts of the country, but their disappearance from the low grounds is complete during the Summer. The love cry of the male begins in March or April, according to the season, and he continues to call till a partner answers. The female makes her nest in retired and inaccessible parts of the morass, and it is rudely constructed of withered grasses and a few feathers. The eggs are four or five in number, of a greenish colour, with brown spots. The young, as is the habit with most ground birds, come out of the shell covered with down, and with their feet so well developed, that they very speedily are able to find their own food, the parent birds, however, attending them till their bills have acquired sufficient firmness to be able to assist themselves readily.

Insects are scarce; many flies, before this time, have become blind and have died; some, however, still continue, and a few will be seen even to Christmas.

The common blow-fly, or musca carnaria, is hairy, black, with its abdomen shining. As every one knows, it deposits its eggs on animal flesh, either fresh or putrid. The eggs are hatched in a few hours, and the maggots, when full grown, which is in eight or ten days, are of a yellowish-white colour, with a slight tinge of pale-red. This maggot is of a lengthened shape, with a pointed front, in which the mouth is situated, and from this the body gradually increases to the other end, which is broad and flat, and on which are two specks resembling eyes, so that a person might take this for its head, and the head for the tail. The insect afterwards changes to a chrysalis, the skin dries round it, and the whole becomes of an oval form. In ten days more, the fly emerges, which is too well known to need further description.

These insects are of great service in the economy of nature, their province being the consumption of decaying animal matter. It was asserted by Linnæus, that three of these flies would consume a dead horse as quickly as a lion. This was, of course, with reference to the offspring of such three flies; and as a single female, in the course of a few days, lays 20,000 eggs, the maggots of which, being so exceedingly voracious, that in the course of the first twenty-four hours, they increase in weight more than two hundred times; it is very possible the assertion is correct.

Musca meteorica; this fly is very troublesome to horses in summer; it is black; abdomen a pale grey; wings yellowish at the base; they have an aversion to elder—a branch of which, placed on the head of the horse, frequently saves both horse and rider much annoyance. They come in swarms before rain, like the species pluvialis, so called from the circumstance of vast swarms appearing before rain; this last mentioned species has five black spots on its back; and its abdomen has obsolete spots on it.

The domestic fly is an exceedingly abundant species; its face is black, with buff sides; forehead yellowish, with a black band; antennæ black; the back with five pale lines; the abdomen has black markings; legs black; wings clear, with the base yellowish. This fly, as is well known, is capable of walking upon the ceilings of rooms, with its back downwards, or upon highly polished glass; in which situation its body is not supported by its legs. From the experiments of Sir Everard Home, it appeared that this was effected by the formation of a vacuum, by means of the close application of the edge of the feet, and the subsequent muscular raising of the central parts, so that the pressure of the atmosphere acted upon the outer sides of the feet, and not upon the inner.—(See *Philosophical Transactions*, for 1816, pages 149 and 322.)

Mr. Blackwall has published a paper in the *Linnæan Transactions*, based upon a careful set of experiments, and he considers that an adhesive secretion is emitted, by means of which, they adhere to whatever place they may alight.

The hawthorn, though stripped of its leaves, is yet attractive, from the circumstance of being covered with berries; in our gardens the Virginian creeper, and various kinds of chrysanthemums are in flower. We are indebted to China for these autumnal gifts, which so considerably shorten the winter of our gardens; formerly at this time the floral season was ended:—

All green was vanished, save of pine and yew,  
That still displayed their melancholy hue;  
Save the green holly, with its berries red,  
And the green moss, that o'er the gravel spread.





D	W	ANNIVERSARIES, OCCURRENCES, AND FESTIVALS.	SUN.			MOON.			High Water at London Bridge.		Equation of Time. Subtract.	Day of the Year
			Rises—R. Sets—S.	Declina- tion South	Age	Rises—R. Sets—S.	Souths.	Age	Morning.	Afternoon		
1	Tu	Mars rises at 5h. 8m. A.M.	7 46 <sup>R</sup>	21 49		11 0 13		0 17	0 42	10 47	335	
2	W	Napoleon crowned, 1804—St. Paul's finished, 1710	3 52 <sup>S</sup>	21 58		6 51 <sup>S</sup>	11 54	0	1 10	1 34	10 24	336
3	Th	Belzoni died 1823	7 48 <sup>R</sup>	22 7				1 56	2 17	10 1	337	
4	F	Saturn sets at 9h. 47m. near W.S.W.	3 51 <sup>S</sup>	22 15		5 47 <sup>R</sup>	0 48	16	2 38	2 59	9 37	338
5	S	Mozart died, 1792—Battle of Austerlitz, 1805	7 51 <sup>R</sup>	22 23		6 45 <sup>R</sup>	1 40	17	3 20	3 39	9 12	339
6	S	2ND SUNDAY IN ADVENT— <i>St. Nicholas</i> — <i>St.</i>	3 51 <sup>S</sup>	22 30		7 46 <sup>R</sup>	2 30	18	3 58	4 16	8 47	340
7	M	Nicholas was Archbishop of Myra, in Greece, A.D. 302. He is regarded as the patron saint of children and mariners, probably in consequence of his benevolent zeal in the protection of orphans and stranded seamen. Churches built near the sea are, in many instances, dedicated to St. Nicholas	7 53 <sup>R</sup>	22 37		8 49 <sup>R</sup>	3 17	19	4 35	4 53	8 21	341
8	Tu	Colley Cibber died, 1732	3 50 <sup>S</sup>	22 44		9 51 <sup>R</sup>	4 22	20	5 11	5 52	7 55	342
9	W	Grouse shooting ends—Charles XII. killed 1718	7 56 <sup>R</sup>	22 50		10 54 <sup>R</sup>	4 46	21	5 50	6 10	7 29	343
10	Th	Awful slaughter of British troops in Affghan, 17,000	3 49 <sup>S</sup>	22 55		11 57 <sup>R</sup>	5 29	22	6 33	6 54	7 1	344
11	F	Old St. Andrew's Day [lives lost, 1842]	7 58 <sup>R</sup>	23 1			6 11	23	7 17	7 45	6 34	345
12	S	3RD SUNDAY IN ADVENT— <i>St. Lucia</i>	3 49 <sup>S</sup>	23 5		1 0 <sup>R</sup>	6 54	24	8 17	8 52	6 6	346
13	S	Izaak Walton died, 1683, aged 90	8 0 <sup>R</sup>	23 10		2 4 <sup>R</sup>	7 38	25	9 24	9 58	5 38	347
14	M	Lord Stanhope died, 1816, aged 63	3 49 <sup>S</sup>	23 14		3 10 <sup>R</sup>	8 24	26	10 30	11 2	5 9	348
15	Tu	Camb. Term ends—Mars rises at 5h. 6m. A.M.	8 1 <sup>R</sup>	23 17		4 17 <sup>R</sup>	9 12	27	11 34		4 40	349
16	W	Oxford Term ends—Jupiter sets at 6h. 49m. A.M.	3 49 <sup>S</sup>	23 20		5 25 <sup>R</sup>	10 4	28	0 3	0 27	4 11	350
17	Th	Bolivar died, 1830—Saturn sets at 8h. 58m. A.M.	8 3 <sup>R</sup>	23 22		6 30 <sup>R</sup>	10 59	29	0 46	1 10	3 41	351
18	F	URANUS, or HERSCHEL, sets at 1h. 9m. after mid-	3 50 <sup>S</sup>	23 24		7 32 <sup>R</sup>	11 56	30	1 33	1 55	3 11	352
19	S	4TH SUNDAY IN ADVENT [night]	8 5 <sup>R</sup>	23 26			1	2 16	2 38	2 42	353	
20	S	St. Thomas, shortest day.—A festival of the Eng-	3 51 <sup>S</sup>	23 27		6 37 <sup>S</sup>	1 52	2	3 0	3 22	2 12	354
21	M	lish Church. It was customary in England to go a-gooding on St. Thomas's Day; that is, they went about begging money, and presenting in return sprigs of palm and bunches of primroses, probably with a view to the decoration of their houses against Christmas	8 6 <sup>R</sup>	23 27		7 54 <sup>S</sup>	2 48	3	3 43	4 6	1 42	355
22	Tu		3 51 <sup>S</sup>	23 27		9 12 <sup>S</sup>	3 43	4	4 27	4 51	1 12	356
23	W		8 6 <sup>R</sup>	23 27		10 30 <sup>S</sup>	4 36	5	5 12	5 37	0 42	357
24	Th	CHRISTMAS EVE—Length of Day, 7h. 46m.	3 52 <sup>S</sup>	23 26		11 48 <sup>S</sup>	5 28	6	6 2	6 27	Add.	358
25	F	CHRISTMAS DAY	8 7 <sup>R</sup>	23 25			6 19	7	6 53	7 22	0 18	359
26	S	St. Stephen—Saturn sets at 8h. 31m. P.M.	3 53 <sup>S</sup>	23 23		1 2 <sup>S</sup>	7 10	8	7 51	8 23	0 48	360
27	S	1ST SUNDAY AFTER CHRISTMAS— <i>St. John the</i>	8 8 <sup>R</sup>	23 21		2 17 <sup>S</sup>	8 1	9	9 0	9 35	1 18	361
28	M	Innocents—Mars rises at 5h. 5m. A.M. [Evangelist]	3 55 <sup>S</sup>	23 18		3 28 <sup>S</sup>	8 54	10	10 10	10 50	1 47	362
29	Tu	Jupiter sets at 6h. 6m. A.M.	8 9 <sup>R</sup>	23 15		4 37 <sup>S</sup>	9 46	11	11 25	11 57	2 17	363
30	W	Venus sets at 4h. 11m. P.M.	3 57 <sup>S</sup>	23 11		5 39 <sup>S</sup>	10 39	12		0 27	2 46	364
31	Th	Silvester—Mercury rises at 6h. 16m. A.M.	8 9 <sup>R</sup>	23 7		6 34 <sup>S</sup>	11 31	13	0 53	1 18	3 15	365

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth, in each Lunation.	Days of the M.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.
Full Moon 2d. 10h. 46m. P.M.	1	17h. 50m.	24° 51'	16h. 14m.	20° 52'	14h. 35m.	14° 41'	4h. 42m.	21° 29'	21h. 52m.	14° 36'	0h. 40m.	3° 31'
Third Quarter 10th 9 16 "	6	17 42	23 27	16 41	22 3	14 48	15 44	4 39	21 25	21 53	14 30	0 39	3 30
New Moon 18 0 42 "	11	17 18	21 31	17 8	22 57	15 2	16 45	4 36	21 19	21 54	14 22	0 39	3 29
First Quarter 23 6 36 A.M.	16	16 52	19 47	17 35	22 34	15 16	17 43	4 33	21 15	21 55	14 15	0 39	3 28
Apogee 9 11 P.M.	21	16 41	19 13	18 3	23 53	15 29	18 38	4 31	21 10	21 57	14 6	0 39	3 28
Perigee 21st 4 "	26	16 47	19 47	18 30	23 53	15 43	19 28	4 28	21 6	21 59	13 57	0 39	3 29



## DECEMBER.

DURING the month of December, Jupiter is very favourably situated for observation (see remarks on him in January and February). During the first few days he will be readily found by considering a line drawn from  $\beta$  Aurigæ to Aldebaran, and at the distance of  $6^\circ$  from the latter star he will be shining brilliantly; he also may be found by considering a line drawn from  $\xi$  Orionis through  $\gamma$  Orionis (see the month of March) which passes a little to the W. of Jupiter; as the month advances he approaches nearer to Aldebaran, and on the 27th day the Planet will be directly over Aldebaran at the distance of 5 degrees.

The Planet Saturn will be visible during the early part of the evening, and he may be found in the same manner as explained in October. There is no other Planet visible, during the month, to the naked eye. Uranus is favourably situated at about 7 P.M., to those persons who have telescopes.

The month of December is distinguished this year by the great number of stars occulted by the Moon. On the 29th there will be two stars in Taurus, which will disappear at the dark limb of the Moon, and will reappear at the bright limb, and one other star will just graze the Moon. And on the 31st day there will be two other stars, which will disappear and reappear. To facilitate these observations, and to enable persons to know at what points of the Moon to look for these several disappearances and reappearances, we give the following engraving. The letter V on the top of the Moon refers to the highest point of the Moon, at the times of the phenomena. The Moon at the time is about 11 or 12 days old.



The disappearances are all at the dark side of the Moon, and of course at some distance from the illuminated portion; that of  $\delta^1$  Tauri will disappear at that part of the Moon marked 1 at 6h. 55m. in the evening, and it will reappear at the bright limb at 7h. 44m., at that part marked 2; at 7. 57 the Star  $\delta^2$  Tauri will just touch the Moon at the part marked 3, or it will graze along the Moon's border. At 8h. 19m., the Star  $\delta^3$  Tauri will disappear at the place marked 4, and it will reappear at the place marked 5, at 9h. 33m. These occurrences will all take place on the 29th day; and the stars are of the 4th magnitude. On the 31st day at 2h. 29m., in the morning the Star 119 Tauri will disappear behind the Moon at the part marked 6, and at the part marked 7 another Star 120 Tauri will disappear at 3h. 28a.m.; these two stars will reappear respectively at the bright limb, at the parts marked 8 and 9, at 3h. 49a.m., and at 4n. 26a.m.

To observe these phenomena it is necessary to use a telescope, as very many of the Astronomical Appearances and Occurrences treated of during this year, to see them properly, require a telescope; and, as many persons who are not much accustomed to the use of telescopes may not adjust them properly for use, we will conclude this part of our treatise by a few words upon their adjustments.

It must be borne in mind that the adjustment of a telescope requires altering with every change of eye, and with every variation of the distance of the object viewed.

Opticians generally draw a line round the tube, at that place where, if the eye-tube be placed, objects at a certain distance viewed through the telescope by an ordinary eye, will be most distinct; but this arrangement needs altering for any other eye, and for the same eye at different distances. Therefore, every person should adjust the telescope for his own eye; this may be done as follows:—hold the telescope by one hand, the eye-tube by the other, whilst looking at any object, and withdraw the eye-tube gently, then the object viewed will either gradually increase in clearness or it will gradually become indistinct; if the former, continue withdrawing, till the eye-glass approaches its proper distance from the object-glass, and when it is at its proper distance, the object will be seen perfectly distinct and well defined; if the eye-tube be drawn further out, the object will again become indistinct, and in that case it must be pressed in again. Practice, to do this readily, is necessary, but a very little will enable a person to obtain that position at which the most perfect distinctness can be obtained.

The greater the magnifying power of a telescope, the greater necessity for an accurate adjustment of it.

If you should wish to view a terrestrial object at a greater distance or at a less distance than another, for each variation a corresponding change must be made in the distance between the eye-glass and the object-glass. Suppose at a greater distance, then the two glasses must be brought a little nearer together by pressing in the eye-tube; if at a less distance, by withdrawing the eye-tube.

If a person usually wear spectacles, such persons should look through the telescope with their spectacles on; if the adjustments have been made by another person with an ordinary eye: if they remove their spectacles they must adjust the telescope for themselves.

All good telescopes are most distinct in the centre of the field of view; it is therefore desirable to keep an object exactly in the middle of the field. A telescope once adjusted for celestial objects needs no change of adjustment for any of them.

We have now merely to remark, that in the Astronomical occurrences of each month, we have given the times at which the Planets pass the Meridian, and if the Sun be below the horizon at such times, they are the best times for looking at them, and if the Sun be not below the horizon, the best times are the nearest to those times when he is beneath the horizon. It will be recollected that for a few hours before the times the Planets pass the Meridian they are always East of the Meridian, and they are W. afterwards. The times are given when the Moon passes the nearest to the Planets in her monthly course, with the angular distance they are from the Moon at such times. If the directions for estimating angular distances given in the month of October be understood, the spot occupied by the Planet will be known at once. The Eclipses of Jupiter's Satellites were explained in January and February. The occultations will be understood by what has preceded, and the other occurrences generally explain themselves.

We trust, therefore, that with this information, and the accurate representation we have endeavoured to give of each class of Astronomical Appearances this year, with the above remarks on the adjustment of telescopes, will enable some of our readers who have telescopes, to observe those appearances to advantage. Those appearances it is almost impossible to describe by words; but, being correctly represented, they will be readily understood; and it must be borne in mind that, to see an Astronomical phenomenon well, it is imperatively necessary to know the nature of the phenomenon; the exact place to look at, and what to look for; it is these desiderata we have endeavoured to supply.

To those who have not telescopes, we have given the best substitute for them by describing and accurately representing the several phenomena.

All the drawings of phenomena are as they would appear to the naked eye, or as they would appear through a telescope that does not invert; but, if the book be turned upside down, and the leaf turned over and viewed from that side, they will appear as through a telescope that does invert.

## ASTRONOMICAL OCCURRENCES IN DECEMBER.

PLANETS.				JUPITER'S SATELLITES.				OCULTATION OF STARS BY THE MOON.			
Names	Time of passing the Meridian or South, on the 15th. day	When near the Moon	Angular Distance from the Moon North or South	Eclipses of		Names of the Stars	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.			
				1st. Sat.	2nd. Sat.						
				Emersion	Emersion						
Mercury . . .	H. M. 11 22 A.M.	D. H. 17 1 P.M.	DEG. 1 South	D. H. M. 10 2 7 A.M.	D. H. M. 6 11 27 P.M.	119 Tauri {	D. H. M. 3 5 17 P.M.	Bright			
Venus . . .	11 55 "	18 2 P.M.	5 South	11 8 35 P.M.	14 2 3 A.M.	120 Tauri {	3 5 47 "	Dark			
Mars . . .	9 38 "	15 10 P.M.	2 South	17 4 2 A.M.	21 4 40 "		3 5 41 "	Bright			
Jupiter . . .	10 57 P.M.	3 At Midnight	3 North	18 10 3 P.M.	24 5 58 P.M.	$\mu$ Geminorum {	3 6 27 "	Dark			
Saturn . . .	4 19 "	22 8 P.M.	6 South	20 4 59 "	31 8 35 "		5 0 55 A.M.				
Uranus . . .	7 3 "	25 8 "	2 South	26 0 25 A.M.		$\kappa$ Cancri {	5 2 12 "	Bright			
				27 6 54 P.M.			7 9 46 P.M.	Dark			
					3rd. Sat.		7 10 32 "	Bright			
					D. H. M. 5 11 46 P.M.	21 Piscium {	24 6 32 "	Dark			
					13 3 47 A.M.		24 7 32 "	Dark			
						For 119 and 120 Tauri &c., see above	30 0 0 "	Dark			

December 2d, 7h. A.M., Mercury stationary with respect to the fixed Stars.—(See September.)

December 2nd, at about midnight, all four of Jupiter's Satellites W. and on the 6th day all four E. of the Planet.

December 11th, 6h. A.M., Mercury at the least distance from the Sun.

December 11th, at Midnight, Mercury in inferior conjunction with the Sun.—(See September.)

December 16th, 1h. A.M., Venus in superior conjunction with the Sun.—(See May.)

December 22nd, 4h. 12m., the Sun enters Capricornus, and Winter commences.





## DECEMBER.

December fell, both sharp and snell,  
Makes flowers creep in the ground;  
Then man's threescore, both sick and sore,  
No soundness in him found.  
His ears and e'en, and teeth of hence,  
All these now to him fail;  
That he may say, both night and day,  
That death shall him assail.  
OLD POEM; 1653.

THE FINE OLD ENGLISH GENTLEMAN WELCOMING AT HIS GATE A BAND OF MUMMERS, TO SHARE WITH HIM, AND ENLIVEN, THE FESTIVITIES OF CHRISTMAS.

DECEMBER, the tenth (from *Decem*), and last month of the Alban and early Roman Calendars, is also the last month of the modern year. In this month, the Romans celebrated their *Saturnalia*, when slaves were on an equal footing with their masters. The Saxons, before their conversion to Christianity, called December *Winter-Monath*; but, after that, added to it the appellation of *Haliġh*, or *Haly*, in commemoration of the Nativity, which has always been celebrated in this month; although the true time of our Saviour's birth is placed in August.

St. Nicholas's (Dec. 6) legends relate such marvellous instances of his early conformity to the observances of the Roman Church, as entitled him to the appellation of the Boy Bishop. The choice of his representative in every cathedral church in this country continued till the reign of Henry VIII.; and, in many, large provision of money and goods was made for the annual observance of the festival of the Boy Bishop, which lasted from this day until *Innocent's Day* (Dec. 28), during which the utmost misrule and mockery of the most solemn rites were practised and enjoined. Of these customs, the *Montem* at Eton is a corruption: it is celebrated triennially; the last Montem was in June, 1844.

*Christmas Eve* (Dec. 24) is celebrated because, Christmas Day, in the primitive Church, was always observed as the Sabbath Day, and, like it, preceded by an Eve, or Vigil. Superstition, ever sweet to the soul, was doubly prompted by the sanctity of the season. It was once believed that at midnight, all the cattle in the cow-house would be found kneeling; that hees sang in their hives on Christmas Eve, to welcome the approaching day; and that cocks crowed all night with same object: to the latter, Shakspeare alludes in *Hamlet*:—

Some say that even 'gainst that hallow'd season,  
At which Our Saviour's birth is celebrated,  
The Bird of Dawning croweth all night long.

The ceremonies and amusements of this season are too numerous for us to describe. The Waits, or more properly Wakes, usually commence their nocturnal serenades about the middle of the month, and play nightly till Christmas Day. Although the music now played is secular, the custom originated evidently in commemoration of the early salutation of the Virgin Mary before the birth of Jesus Christ, or the *Gloria in Excelsis*, the hymn of the angels—the earliest Christmas Carol: the word Carol is from the Italian *Carola*, a song of devotion, (*Ash*); or from *cantare*, to sing, and *rola*, an interjection of joy, (*Bourne*.)

Carols are yet sung at Christmas in Ireland and Wales; but, in Scotland, where no Church fasts have been kept since the days of John Knox, the custom is unknown. On the Continent it is almost universal: during the last days of Advent, Calabrian minstrels enter Rome, and are to be seen in every street, saluting the shrines of the Virgin-mother with their wild music. Within the present century, the singing of Carols began on Christmas Eve, and were continued late into the night. On Christmas Day, these Carols took the place of psalms in all the churches, the whole congregation joining; and at the end the clerk declared in a loud voice, his wishes for a merry Christmas and a happy new year to all the

parishioners. Still these Carols differed materially from those of earlier times, which were festal chansons for enlivening the merriment of Christmas, and not songs of Scripture history; the change having been made by the Puritans.

The decking of churches and houses with laurel and other evergreens, at this period, may be to commemorate the victory gained over the powers of darkness by the coming of Christ. The gathering of Mistletoe is a relic of Druidic worship; and Holly was originally called the *holy tree*, from its being used in holy places.

CHRISTMAS DAY has been set apart, from time immemorial, for the commemoration of our Blessed Saviour's birth; when, "though Christ was humbled to a manger, the contempt of the place was took off by the glory of the attendance and ministration of angels." Christmas is named from *Christi Missa*, the Mass of Christ: It was, however, forbidden to be kept as a fast by the Council of Braga, A.D. 563; which anathematized such as did not duly honour the birthday of Christ, according to the flesh, but pretended to honour it by fasting on that day; a custom attributed to the same conception which led to the practice of fasting on the Lord's day, namely, the belief that Christ was not truly horn in the nature of man. Since this Canon, we do not find any positive regulation specially affecting the observance of Christmas.—(*Feasts and Fasts*.)

To detail the hospitalities of Christmas would fill a volume, though our artist has grouped the most characteristic celebrities of the season. Here is "The Fine Old English Gentleman" welcoming to his gate a band of Mimmers, (masked persons,) and Minstrels, with their ludicrous frolics, not forgetting the Hobby-horse Dance:—

We are come over the Mire and Moss;  
We dance an Hobby horse;

A Dragon you shall see,  
And a wild worm for to flee.

The Loving-cup was borrowed from the Wassail-bowl, though the latter was carried about with an image of Our Saviour. Here, too, is the *boar's head*, "the rarest dish in all the londe, and provided in honour of the King of bliss." Nor must we omit the Yule-log burnt on Christmas Eve; though the bringing it in with "Christmas Candles" is forgotten. Even the Mince-pies are assumed to be emblematical—their long shape imitating the cratch, rack, or manger wherein Christ was laid—(*Selden*). Christmas Boxes are of Pagan origin.

Although much of this custom of profuse hospitality has passed away, Christmas is yet universally recognised as a season when every Christian should show his gratitude to the Almighty, for the inestimable benefits procured to us by the Nativity of our Blessed Saviour, by an ample display of good will toward our fellow men. "Hospitality is threefold: for one's family; this is of necessity; for strangers; this is of courtesy: for the poor; this is charity."—(*Fuller*).

*St. Stephen's Day*, (December 26), is first in the days of Martyrdom: St. Stephen being a Martyr both in *will* and *deed*. *St. John* (December 27), being a Martyr in *will*, but not in *deed*, is placed second.

*The Innocents*, (December 28), being Martyrs in *deed*, though not in *will*, are, therefore, placed last.—(*Elementa Liturgica*).



## DECEMBER.

Birds are generally mute during this month; the robin and the wren, however, sing in all weathers.

Woodcocks are the most abundant during this month. They do not arrive in large flocks, but keep arriving on our shores singly, or sometimes in pairs, from the beginning of October till December. The woodcock is about fifteen inches in length, twenty-seven in breadth, and weighs from twelve to sixteen ounces; bill three inches long, and is formed in much the same manner as in the snipe; the forehead is ash coloured, and all the rest of the upper part is barred with black and grey; the under parts are yellowish, with dusky streaks lengthwise; eyes



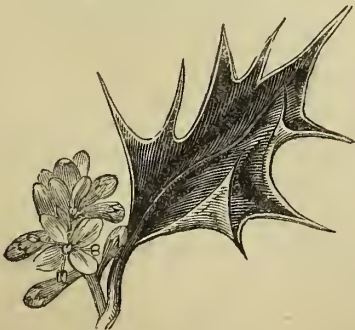
THE WOODCOCK.

large, situated near the top of the head; legs short; tail formed of twelve feathers, the two centre ones rather the longest. The colours, consisting of black, white, ash, red, brown, rufous, and yellow, are so arranged in rows, crossed and broken at intervals by lines and marks of different shapes, that the whole seems to the eye, at a little distance, blended together, giving to the bird exactly the same appearance as the withered sticks, leaves, &c., which form the background of the scenery of its usual haunts.

The chrysalides of the cabbage, the swallow-tailed and the peacock butterflies may be found under sheltered projections; also those of most butterflies and moths in their accustomed situations. Insects, with the exception of a few moths, have disappeared.

The vegetable kingdom is now in a state of repose, with the exception of the evergreens, and here and there a daisy, or a polyanthus. All appears leafless, and, in the words of Thomson—

Dread Winter spreads his latest glooms,  
And reigns tremendous, o'er the conquered year,  
How dead the vegetable kingdom lies!



SPRIG OF HOLLY IN FLOWER, AS IT APPEARED IN MAY.

Though thus dead, yet there is much for a naturalist to observe. The rich appearance of trees and shrubs, by the crystallization of hoar frost, is frequently

very beautiful; and, if examined, the crystal will be found different in form on every different shrub and substance.

The crystallized forms of snow, too, is well worthy examination. There are more than fifty different forms known, some of which are exceedingly beautiful.

The effects of snow are well worthy investigation. From experiments made by Mr. Glaisher, and published in the ILLUSTRATED LONDON NEWS of 1845, February 15th, it appeared that during the night common to the 11th and 12th of February, the effect of snow on grass caused the latter to be 32° warmer than grass not covered by snow. With a hope of being allowed to meet our friends another year, we close this division of the Almanack with the symbol of the season; but, first, we will illustrate one of the changes alluded to below, by giving its appearance as it was in May, and its appearance as at present.



BRANCH OF HOLLY WITH BERRIES AS IT APPEARS IN DECEMBER.

Upon concluding this part of our Almanack, a few remarks may be excusable. The vast fields that Astronomy and Natural History embrace, would of course preclude us from noticing other than small portions of these sciences. In the former, however, we have taken especial care that no important or interesting phenomena is omitted that will happen during the year, except, indeed, it be a new comet, of which, at present, we have no information. In the Natural History, we have noticed, in each month, the most interesting occurrences in that month; and, in detail, as far as is necessary for the general reader, and the recognition of the subject spoken of. In some cases we have entered into more particular details, where such would tend to remove either popular error or prejudice—such as in the case of the bittern, the blue titmouse, &c. And in some cases we have endeavoured to enlist a better feeling towards the despised creation—as in the case of snails, &c. All animals are preyers, whatever be their kind of food; but, in the economy of nature, preying is preservation, not destruction, and tends quite as much to preserve the races preyed upon as those which are the preyers. Life, both in the vegetable and animal kingdom, is too abundant for the means of life. The former is almost unlimited; the latter is bounded by the quantity of matter that can exist in a particular form; and it is only the excess of life above the means of supporting it that is preyed upon. And it must be borne in mind that were no more of each kind produced, than were necessary for the continuation of that kind, all means of nourishment would be at an end.

Of this superabundance of vegetable life, snails, caterpillars, &c., from their vast abundance, and their being most numerous where there is the most food, are evidently destined to perform an important part in the economy of wild nature. These, in their turn, are eaten by birds, the eggs of which of some are preyed upon by other birds, and these last again by rapacious birds; again, it is eaten by animals, as grass by many; the grass-eater in his turn becoming food for others. And thus the wholesome balance is kept, which is the best for all. And, if in any case one class becomes too numerous, the balance is still obtained by pestilence carrying off the superabundance. Thus we see, both in the animal and vegetable kingdom, the series goes on till mildew on trees, or, in other words, fungi (as in cases of the species *Hydnum*, (see *July*)) feed upon the ruins of the largest trees, and in general upon anything of a vegetable nature, in a state of decay. The mould on cheese, and that on bread, are both a species of fungi. In the animal kingdom the caterpillar feeds on the carcase of the largest beasts.

Nature abounds everywhere. Our life, our means of living, depend upon a partial knowledge of it. And when we consider the variety of subjects, so varied—so beautiful—so well adapted for the fulfilment of their respective parts—can we doubt that a system so extensive, yet all connected, changeful, yet so constant; parts always decaying, and always renewing; ever changing, yet always the same—that all can be without a Maker more Mighty than it all. Again, look at our Astronomical article—how many occurrences are there predicted, yet every one will happen at the time predicted. But that part of which we have spoken, is only a small portion of the universe, which is beyond all conceivable bounds. The Maker of this majestic structure must be one, compared with whom all human thought, all human power, is as nothing.

The Heavens declare the glory of GOD, and the Firmament sheweth His handiwork.



# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## STAMPS AND TAXES.

### RECEIPT STAMPS.

For	£	s.	d.	For	£	s.	d.
For £5 and under £10	0	3	0	For £200 and under £300	4	0	0
10 .. 20	0	6	0	300 .. 500	5	0	0
20 .. 50	1	0	0	500 .. 1000	7	6	0
50 .. 100	1	6	0	1000 and upwards	10	0	0
100 .. 200	2	6	0	In full of all demands	10	0	0

N.B.—Persons receiving the money are compelled to pay the duty.

### BILLS AND NOTES.

£	s.	d.	Not ex.	Exceed.
			2 months.	2 months.
Above £2	5	0	1	0
20 .. 30	0	6	2	0
30 .. 50	0	6	2	6
50 .. 100	0	6	3	6
100 .. 200	0	6	4	6
200 .. 300	0	6	5	6
300 .. 500	0	6	6	6
500 .. 1000	0	6	8	6
1000 .. 2000	0	6	12	6
2000 .. 3000	0	6	15	0
Above 3000	0	6	25	0

### BONDS AND MORTGAGES.

Any sum not exceeding	£	s.	Above 1000 and not ex-	£	s.
ceeding			ceeding		
Above £50 and not ex-	1	0	2000 ..	6	0
ceeding	1	10	3000 ..	7	0
100 .. 200	2	0	4000 ..	8	0
200 .. 300	3	0	5000 ..	9	0
300 .. 500	4	0	10000 ..	12	0
500 .. 1000	5	0			

Bonds of every 1080 words above the first, 25s.

Mortgages, 20s.

### APPRENTICES' INDENTURES.

Under £30	£	s.	For £200 and under	£	s.
For £30 and under £50	2	0	300 ..	4	0
50 .. 100	3	0	400 ..	5	0
100 .. 200	6	0	500 ..	6	0

### PROBATES OF WILLS AND LETTERS OF ADMINISTRATION.

Above the Value of	And under.	With a Will.	Without a Will.
£	£	£	£
20 ..	50	0	10s.
20 ..	100	0	10s.
50 ..	100	1	0
100 ..	200	2	0
200 ..	300	5	0
300 ..	450	8	0
450 ..	600	11	0
600 ..	800	15	0
800 ..	1000	22	0
1000 ..	1500	30	0
1500 ..	2000	40	0
2000 ..	3000	50	0
3000 ..	4000	60	0
4000 ..	5000	80	0
5000 ..	6000	100	0
6000 ..	7000	120	0
7000 ..	8000	140	0
8000 ..	9000	160	0
9000 ..	10000	180	0

The scale continues to increase up to £1,000,000.

### DUTIES ON LEGACIES.

Of the value of £20, or upwards, out of Personal Estate, or charged upon Real Estate, &c.; and upon every share of Residue—To a child, or parent, or any lineal descendant, or ancestor of the deceased, £1 per cent. To a Brother or Sister or their descendants, £5 per cent. To an Uncle, or Aunt, or their descendants, £5 per cent. To a Great Uncle or Great Aunt, or their descendants, £6 per cent. To any other Relation or Stranger in Blood, £10 per cent.—Legacy to Husband or Wife exempt.

If the deceased died prior to the 5th of April, 1805, the duty only attaches on Personal Estates, and by a lower scale.

### LICENCES.

For Marriage, if special..	£5	0
Ditto, if not special ..	0	10
For Bankers ..	30	0
For Pawnbrokers, within the limits of the twopenny post	15	0
Elsewhere ..	7	10
For Appraisers ..	0	10
For Hawkers and Pedlars, on foot ..	4	0
Ditto, with one horse, ass, or mule ..	8	0
Selling Beer, to be drunk on the Premises ..	3	3
Ditto, not to be drunk on the Premises ..	1	1

### DOGS.

For every greyhound ..	£1	0	0
For every hound, pointer, setting dog, spaniel, terrier, or lurcher, and for every dog, where two or more are kept, of whatever denomination they may be (except greyhounds) ..	0	14	0
For every other dog, where one only is kept ..	0	8	0
Compounding a pack of hounds ..	36	0	0

Farmers with farms under £100 value, and shepherd, are exempt from dogs kept for the care of sheep.

## WINDOW TAX.

Windows	Duty per Annum.			Windows	Duty per Annum.			Windows	Duty per Annum.			Windows	Duty per Annum.		
	£	s.	d.		£	s.	d.		£	s.	d.		£	s.	d.
8	0	16	6	16	3	18	6	24	7	5	9	32	10	13	3
9	1	1	0	17	4	7	0	25	7	16	3	33	11	1	6
10	1	8	0	18	4	15	3	26	8	2	9	34	11	10	0
11	1	16	3	19	5	3	9	27	8	11	0	35	11	18	3
12	2	4	9	20	5	12	3	28	8	19	6	36	12	6	9
13	2	13	3	21	6	0	6	29	9	8	0	37	12	15	3
14	3	1	9	22	6	9	0	30	9	16	3	38	13	3	6
15	3	10	0	23	6	17	6	31	10	4	9	39	13	12	0

Farm-houses belonging to Farms under £200 a year are exempt.

\*. By cap. 17, 3 and 4 Vict., an additional £10 per cent. is imposed upon all the Assessed Taxes, Customs, and Excise.

## DUTIES ON CARRIAGES WITH FOUR WHEELS.

No.	Per carriage for private use.			No.	Stage coaches & post chaises.		
	£	s.	d.		£	s.	d.
1	6	0	0	1	5	5	0
2	6	10	0	2	10	10	0
3	7	0	0	3	15	15	0
4	7	10	0	4	21	0	0
5	7	17	6	5	26	5	0
6	8	4	0	6	31	10	0
7	8	10	0	7	36	15	0
8	8	16	0	8	42	0	0
9	9	1	6	9	47	5	0

## WITH TWO WHEELS.

£	s.	d.	£	s.	d.
Carriages with two wheels, each ..	3	5	0		
Ditto, drawn by two or more horses, or mules ..	4	10	0		
For every additional body used on the same carriage ..	1	11	6		
For every additional body ..	3	3	0		
Carriages let by coachmakers, without horses ..	6	0	0		

For every carriage with four wheels, being of less diameter than thirty inches each, where drawn by ponies or mules, above twelve and not exceeding thirteen hands, per annum, £3 5s.; if with less than four wheels, and the ponies not exceeding twelve hands, and not let for hire, exempt. For every carriage with four wheels, drawn by one horse and no more, per annum, £4 10s. Carriages with less than four wheels, drawn by one horse, without any metalic springs, and constructed and marked as described by Act 3 and 4, George IV., c. 39, and not exceeding £21 in value; also common stage carts, constructed for the carriage of goods, and occasionally used for riding, are exempt.

## HORSE TAX.

### FOR RIDING OR DRAWING CARRIAGES.

No.	Each Horse			No.	Each Horse.		
	£.	s.	d.		£.	s.	d.
1	1	8	9	11	3	3	6
2	2	7	3	12	3	3	6
3	2	12	3	13	3	3	9
4	2	15	0	14	3	3	9
5	2	15	9	15	3	3	9
6	2	18	0	16	3	3	9
7	2	19	9	17	3	4	0
8	2	19	9	18	3	4	6
9	3	0	9	19	3	5	0
10	3	3	6	20	3	6	0

£	s.	d.	£	s.	d.
Horses let to hire without post duty, and race-horses, each ..	1	8	9		
Horses rode by butchers in their trade, each ..	1	8	9		
Where two only are kept, the second at ..	0	10	6		
Horses for riding, and not exceeding thirteen hands, each ..	1	1	0		
One horse used by a bailiff on a farm ..	1	5	0		
Other horses, thirteen hands high, and mules, each ..	0	10	6		

A husbandry horse, occasionally ridden by any one occupying a farm of less annual value than £100 is exempt; as are also horses employed by market gardeners, in their business.

## PENALTIES UNDER THE STAMP ACT.

For acting as an Appraiser without a license, £50.  
For every Appraisal written upon paper not duly stamped, £50.  
Apprentices' Indentures to state the real amount of premium in proportion to which the stamp duty is charged, on penalty of forfeiting double the amount of premium.  
For Attorneys and Solicitors acting without having been admitted, £100.—For acting without certificate, £50.  
For drawing a Bill or Promissory Note upon unstamped paper, £50.—For post-dating Bills of Exchange, £100.  
For drawing a Check more than ten miles from the place where made payable, £100.—For receiving the same in payment, £20.—For Bankers paying the same, £100.  
For setting out wrong amount in Conveyance. On the Attorney, £500. On the purchaser £50.  
For selling Patent Medicines, &c., without a license, £20. Without a stamp, £10.  
For printing a Newspaper without first making affidavit as to the ownership, &c., £100. For delaying to enter each publication at the Stamp Office, £100.  
For printing without stamps, on each paper issued, £20.  
For neglecting or delaying to enter Pamphlets at the Stamp Office, or selling without paying duty when demanded, £20.  
For Pawnbrokers taking pledges without a license, £50. For selling Plate without a license, £20. For selling plate without being duly stamped, £50.  
For taking possession of the effects of any one deceased, without taking out Letters of Administration, £100.



# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## HIGH WATER.

A TABLE of the difference between the Times of High Water at London Bridge and at the chief Ports and Places in Great Britain and Ireland, as formed from local Tide Tables, and the best works on Navigation:—

### COAST OF ENGLAND.

St. Agnes Lights	..	Add	2 23	Hull	..	..	Add	3 53
Aldborough	..	..	8 38	Humber River Entrance	..	..	..	3 23
Alderney Island	..	..	4 38	Ipswich	..	..	..	9 53
Arundel	..	..	9 8	Lands-end	..	..	..	2 23
Barnstable Bar	..	..	3 23	Liverpool Dock	..	..	..	9 15
Beachy Head	..	..	9 43	Lynn Deep	..	..	..	3 58
Bridgewater	..	..	4 38	Margate Pier	..	Subt.	2 2	
Bridlington	..	..	2 23	Newcastle	..	Add	1 53	
Bridport	..	..	3 53	Newhaven	..	..	9 43	
Brighton	..	..	9 31	Nore Light	..	Subt.	0 58	
Bristol	..	..	5 8	Orfordness	..	Add	8 33	
Chatham	..	Subt.	1 13	Penzance	..	..	2 23	
Chichester Harbour	..	Add	9 23	Plymouth Dock-yard	..	..	3 26	
Coquet Island	..	..	0 38	Portland Roads	..	..	4 9	
Cromer	..	..	3 49	Portsmouth Dock-yard	..	..	9 33	
Cornwall Cape	..	..	2 23	Ramsgate Harbour	..	..	9 13	
Cuckold's Point	..	Subt.	0 6	Rye Harbour	..	..	8 33	
Dartmouth Harbour	..	Add	3 58	Scarborough	..	..	2 18	
Deal	..	..	9 8	Scilly Islands	..	..	2 25	
Dover Pier	..	..	9 3	Sheerness Dock-yard	..	Subt.	1 28	
Downs (Stream)	..	..	0 38	Shields	..	Add	0 53	
Dungeness	..	..	8 43	Shoreham Harbour	..	..	9 8	
Eddystone Lighthouse	..	..	3 8	Southampton	..	..	9 33	
Exmouth Bars	..	..	4 18	Spithead (Stream)	..	..	7 23	
Falmouth	..	..	3 8	Spurn Lights	..	..	3 13	
Flamborough Head	..	..	2 23	Sunderland	..	..	0 53	
Foreland (North)	..	..	9 33	Torbay	..	..	3 58	
Foreland (South)	..	..	9 8	Tynemouth Bar	..	..	0 43	
Gravesend	..	Subt.	0 37	Weymouth	..	..	4 23	
Guernsey Pier	..	Add	4 23	Whitby	..	..	1 38	
Harwich	..	..	9 23	Whitehaven	..	Subt.	2 51	
Hastings	..	..	8 29	Yarmouth Roads	..	..	6 33	

### COAST OF WALES.

Aberdov	..	..	Add	5 25	Cardigan Bar	..	Add	4 53
Aberystwith	..	..	..	5 23	Caernarvon Bar	..	..	7 13
Barmouth	..	..	..	5 48	Holyhead Bay	..	..	7 53
Beaumaris	..	..	..	8 19	Milford Haven	..	..	3 38
Carmarthen Bar	..	..	..	4 3	Pembroke Dockyard	..	..	3 57
Caldy Island	..	..	..	3 53	Swansea Bay	..	..	3 47

### COAST OF SCOTLAND.

							n. m.								n. m.
Aberdeen Bar	..		Subt.	0	56	Kirkcudbright	..	..	Add	9	8				
Arran Island	..	..	Add	9	8	Leith Pier	..	..	..	0	15				
Banff	..		Subt.	1	26	Lerwick Harbour	..	..	..	8	23				
Cantyre (Mull)	..	..	Add	6	52	Lewis Island	..	..	..	3	53				
Cromarty	..	..		9	38	Montrose	..	..	Subt.	0	22				
Dee River	..	..	Add	10	38	Pentland Frith	..	..	Add	8	23				
Dunbar	..	..		0	13	Perth	..	..	..	3	21				
Duncansby Head	..	..	Add	6	8	Peterhead	..	..	Subt.	1	22				
Dundee	..	..		0	18	Port Glasgow	..	..	Add	9	38				
Eyemouth	..	..		0	8	Port Patrick	..	..	..	8	54				
Galloway (Mull)	..	..		9	8	Stromness	..	..	..	6	53				
Greenock	..	..		9	38	Tay Bar	..	..	Subt.	0	2				
Inverness	..	..	Add	9	53	Wick	..	..	Add	9	0				

### COAST OF IRELAND.

			N. M.				N. M.
Achill Head	..	Add	3 53	Dublin Bar	..	Add	9 5
Bally Shannon Bar	..	..	3 33	Dundalk Bar	..	..	8 53
Baltimore	..	..	1 38	Dungarvon	..	..	2 23
Bantry Bay	..	..	1 39	Galway Bay	..	..	2 23
Belfast	..	..	7 58	Howth Harbour	..	..	9 1
Carlingford Bar	..	..	8 33	Killybegs	..	..	4 37
Cape Clear	..	..	1 53	Kingstown Harbour	..	..	9 6
Carrikerfergus	..	..	8 22	Kinsale Harbour	..	..	2 23
Cork Harbour	..	..	2 23	Londonderry	..	..	3 54
Dingle Bay	..	..	1 23	Shannon Mouth	..	..	1 43
Donaghadee Pier	..	..	7 8	Sligo Bay	..	..	3 52
Donegal	..	..	2 58	Tralee Bay	..	..	1 38
Downing's Bay	..	..	3 13	Waterford Harbour	..	..	3 43
Drogheda	..	..	8 34	Wexford Harbour	..	..	5 22

### COAST OF THE ISLE OF MAN.

Air Point	..	Add	9 0	Douglas Harbour	..	Add	9 3
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### COAST OF ISLE OF WIGHT.

Cowes	..	Add	8 38	Needles Point	..	Add	7 34
Dunnose	..	..	7 4	Yarmouth	..	..	7 24
Newport	..	..	..	..	Add	9 59	..

To find the Time of High Water at any of these places we must proceed as follows:—Find the Time of High Water at London Bridge as given in the Calendar, and ADD the number opposite to the given place, or SUBTRACT it according as it has Add or Subt. prefixed to it; and the sum or difference is the time of High Water at that place. Attention must be paid to the following Notes:—

I. When the two numbers are added, if the sum be more than 12 hours, reject the 12 hours, and the remainder is the time of High Water in the afternoon, if the morning tide at London Bridge was taken, or the next day's morning tide, if the afternoon tide at London Bridge was taken.

II. If the interval at the given place is to be subtracted, and is greater than the time of High Water at London Bridge, increase the time at London Bridge by 12h., and then subtract, and the remainder is the time of High Water at the given place in the morning, if the afternoon tide at London Bridge was taken, or in the afternoon of the preceding day, if the morning tide was taken.

EXAMPLE.—Required the time of High Water at St. Agnes Lights and Aldborough on the 1st of January, also at Chatham on the 9th day of January.

The time of High Water at London Bridge is 4h. 15m. A.M., on Jan. 1.  
St. Agnes Lights (from preceding table) Add 2 23

The sum is the time of High Water at St. Agnes Lights .. 6 38 A.M., on Jan. 1.

The time of High Water at London Bridge is 4h. 15m. A.M., on Jan. 1.  
Aldborough (from preceding table) Add .. 8 38

The sum is .. 12 53

Reject 12h. and the time of High Water at Aldborough on Jan. 1, is 0h. 53m. in the afternoon.

On the 9th day, the time of High Water at London Bridge is .. 0h. 4m. P.M.

Add 12h. to this .. 12 4  
Chatham (from preceding table) Subt. .. 1 13

The difference is .. 10 51

And, therefore, the time of High Water at Chatham, on January 9, is 10h. 51m. in the morning.

It must be borne in mind that the varying pressure of the atmosphere as well as the direction of strong winds, have a great effect on both the times and the heights of High Water. Thus, in the North Sea, a strong N.W. gale and a low barometer, will raise the surface two or three feet higher than usual, and cause the tide to flow half an hour longer all along the coast to London, than the predicted times in the calendar.

An E. or S.E. wind will produce an opposite effect, so that at times the prediction may be in error half an hour or more.—(See foot note to page 256 of Greenwich Magnetical and Meteorological Observations for 1841.)

## CALENDAR OF THE JEWS, FOR THE YEAR 1846.

5606	1845	NEW MOONS AND FEASTS.
Tebeth .. 1	December .. 30	
" .. 5	1846 .. 3	Sabbath
" .. 10	January .. 8	Fast: Siege of Jerusalem
Schebat .. 1	" .. 28	
" .. 5	" .. 1	Elias
" .. 9	February .. 5	Xylophoria
" .. 23	" .. 19	Fast: Memory of the War of the Ten Tribes against Benjamin
Adar .. 1	" .. 27	Fast: for the Death of Moscs
" .. 7	" .. 5	Fast: Esther
" .. 13	March .. 11	Purim: Feast of Haman
" .. 14	" .. 12	Schneban Purim
" .. 15	" .. 13	
Nisan .. 1	" .. 28	
" .. 15	" .. 11	Passover begins
" .. 16	April .. 12	Second day
" .. 21	" .. 17	Seventh day
" .. 22	" .. 18	Passover ends
" .. 26	" .. 22	Fast: the Death of Joshua
Ijar .. 1	" .. 27	
" .. 7	" .. 3	Consecration of the Temple
" .. 14	May .. 10	Passah Schemi
" .. 18	" .. 14	Lag Beomer
Sivan .. 1	" .. 26	Feast of the New Moon
" .. 6	" .. 31	Pentecost Holidays, the Feast of Weeks
" .. 7	" .. 1	Second day
" .. 15	June .. 9	Victory of Maccabeus
Tamuz .. 1	" .. 25	
" .. 18	" .. 12	Fast: Seizure of the Temple by Titus
Ab .. 1	July .. 24	
" .. 10	" .. 2	Fast: Tishabeab. Destruction of the Temple
Elul .. 1	August .. 23	
" .. 3	" .. 25	Selilot: beginning of the 40 days prayer
" .. 7	" .. 29	Consecration of the walls of Jerusalem
" .. 29	" .. 31	Fast of the end of the year 5606
" .. 5607	" .. 21	
Tisri .. 1	" .. 21	Feast of the new year, 5607
" .. 2	September .. 22	Second day
" .. 3	" .. 23	Fast: Death of Gedaliah
" .. 7	" .. 27	Fast: for the Worship of the Golden Calf
" .. 10	" .. 30	Fast: Day of Atonement
" .. 15	October .. 5	Feast of Tabernacles
" .. 16	" .. 6	Second day of the Feast
" .. 21	" .. 11	Feast of Branches
" .. 22	" .. 12	End of the Feast of Tabernacles
" .. 23	" .. 13	Feast of the Law
Marchesvan .. 1	" .. 21	
" .. 6	" .. 26	Fast: for the Destruction of Jerusalem
Kislev .. 1	November .. 20	
" .. 25	December .. 14	Fast of the Dedication of the Temple
Tebeth .. 1	" .. 20	
" .. 8	" .. 27	Fast
" .. 9	" .. 28	Fast
" .. 10	" .. 29	Fast: the Siege of Jerusalem

## THE MONTHS OF THE TURKISH CALENDAR.

Hegira; 1262,	Moharrem 1	(New year)	falls on	December 30, 1845.
..	Safar 1	..	..	January 29, 1846.
..	Rabi el-Awwel 1	..	..	February 27, ..
..	Rabi el-Acher 1	..	..	March 29, ..
..	Dschehad el-Awwel 1	..	..	April 27, ..
..	Dschehad el-Acher 1	..	..	May 27, ..
..	Redscheb 1	..	..	June 25, ..
..	Schaban 1	..	..	July 25, ..
..	Ramadani 1	(Month of Fasting)	..	August 23, ..
..	Schawal 1	(Bairam)	..	September 22, ..
..	Dsil-Kade 1	..	..	October 21, ..
..	Dsil-hedsché 1	..	..	November 20, ..
..	1263, Moharrem 1	(New Year)	..	December 20, ..



# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## HER MAJESTY'S MINISTERS.

### OF THE CABINET.

First Lord of the Treasury (Premier)	..	Sir Robert Peel.
Lord Chancellor	..	Lord Lyndhurst.
Commander-in-Chief	..	Duke of Wellington.
Chancellor of the Exchequer	..	Right Hon. H. Goulburn.
Lord President of the Council	..	Lord Wharnclyffe.
Lord Privy Seal	..	Duke of Buccleuch.
Secretaries of State	Home	.. Right Hon. Sir J. R. G. Graham, Bart.
	Foreign	.. Earl of Aberdeen.
	Colonial	.. Lord Stanley.
First Lord of the Admiralty	..	Earl of Haddington.
President of the Board of Control	..	Earl of Ripon.
President of the Board of Trade	..	Earl of Dalhousie.
Chancellor of the Duchy of Lancaster	..	Lord George Somerset.
Paymaster-General	..	Right Hon. W. B. Baring.

### NOT OF THE

Postmaster-General	..	Earl Lonsdale.
Secretary at War	..	Hon. Sidney Herbert.
Woods and Forests	..	Earl of Lincoln.
Master-General of the Ordnance	..	Sir G. Murray.
Vice-President of the Board of Trade	..	Sir G. Clerk.
and Master of the Mint	..	Hon. Sidney Herbert.
Secretary of the Admiralty	..	J. Young, Esq., E. Cardwell, Esq.
Joint Secretaries of Treasury	..	Viscount Jocelyn, Viscount Mahon
Secretaries of Board of Control	..	Hon. C. M. Sutton, S. M. Phillips, Esq.
Home Under-Secretaries	..	Vis. Canning, H. U. Addington, Esq.
Foreign Under-Secretaries	..	G. W. Hope, Esq., J. Stephen, Esq.
Colonial Under-Secretaries	..	Right Hon. H. Goulburn, W. Cripps, Esq., J. M. Gaskell, Esq., H. B. Baring, Esq., W. Forbes Mackenzie, Esq.

Lords of the Treasury	..	Sir G. Cockburn, Vice-Admiral Sir W. H. Gage, Adm. Bowles, Hon. W. Gordon, Hon. H. Fitzroy
Lords of the Admiralty	..	Sir T. Hastings
Storekeeper of the Ordnance	..	Lord Arthur Lennox
Clerk of the Ordnance	..	Colonel Jonathan Peel
Surveyor-General of the Ordnance	..	Sir F. Thesiger
Attorney-General	..	Sir F. Kelly
Solicitor-General	..	Dr. Nicholl
Judge-Advocate	..	

### IRELAND.

Lord Lieutenant	..	Lord Heytesbury
Lord Chancellor	..	Sir Edward Sugden
Chief Secretary	..	Sir Thomas Fremantle
Attorney-General	..	Right Hon. T. B. Smith
Solicitor-General	..	Richard Wilson Greene, Esq.

### SCOTLAND.

Lord Advocate	..	Duncan McNeill, Esq.
Solicitor-General	..	Adam Anderson, Esq.

## THE QUEEN'S HOUSEHOLD.

Lord Steward	..	Earl of Liverpool.
Lord Chamberlain	..	Earl Delawarr.
Vice-Chamberlain	..	Lord E. Bruce.
Master of the Horse	..	Earl Jersey.
Clerk Marshal and Chief Equerry	..	Lord Charles Wellesley.
Treasurer of the Household	..	Earl Jermyn.
Comptroller of the Household	..	Hon. G. L. D. Damer.
Master of Buck-hounds	..	Earl Rosslyn.
Captain of the Yeomen of the Guard	..	Earl Beverley.
Captain of Gentlemen at Arms	..	Lord Forester.
Lords in Waiting	..	Earl of Hardwicke, Lord Rivers, Lord Hawarden, Lord Byron, Earl of Warwick, Viscount Sydney, Earl of Morton, Marquis of Ormonde.
Mistress of Robes	..	Duchess of Buccleuch.
Ladies of Bedchamber	..	Countess Dunmore, Countess of Mount Edgcombe, Marchioness of Douro, Viscountess Canning, Lady Portman, Countess of Charlemont, Countess of Gainsborough, Viscountess Jocelyn.

## PRINCE ALBERT'S HOUSEHOLD.

Groom of the Stole	..	Marquis of Exeter.
Treasurer and Private Secretary	..	George Edward Anson, Esq.
Lords of Bedchamber	..	Lord G. Lennox, and Marquis of Granby.
Equerries	..	Lieut-Col. Bouvierie, Lieut-Col. Wyldes, Major-Gen. Sir Edward Bowater.
Grooms of Bedchamber	..	General Sir Geo. Anson, Capt. Francis Seymour.
Clerk Marshal	..	Major-Gen. Sir W. Wemyss.
Physicians	..	Sir James Clark, Dr. Holland, Dr. Forbes.
Surgeons	..	Sir Benjamin Brodie, Bart., Benjamin Travers, Esq., Charles Aston Key, Esq.
Surgeon Dentist	..	Alex. Nasmyth, Esq.
Chemist and Druggist	..	Peter Squire, Esq.

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Deputy Registrars, Messrs. Campbell, Curzon, Barnes, Whitehead, Miller, and Abrahall	..	
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Enrolment Office, Mr. Church	..	
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Birmingham, John Balguy, Q. C. Esq., and Robert Daniell, Esq.	..	
Liverpool, Walter Skirrow, Esq., and Charles Phillips, Esq.	..	
Manchester, Ebenezer Ludlow, Esq., Sergeant, and William Thomas Jemmett, Esq.	..	
Leeds, Martin John West, Esq., and Montague Bere, Esq.	..	
Bristol, H. J. Stephen, Esq., Sergeant, and Richard Stevenson, Esq.	..	
Exeter, Edward Goulburn, Esq., Sergeant	..	
Newcastle, N. Ellison, Esq.	..	

## CITY OFFICERS.

### LORD MAYOR.

Elected September 29th—Sworn in November 8th.  
The Right Honourable John Johnson, Dowgate, 1835.

### SHERIFFS.

Elected 24th June—Sworn in 28th September.  
William James Chaplin, Esq. John Laurie, Esq.

### UNDER SHERIFFS.

Mr. F. T. Bircham. Mr. David Williams Wire.

### ALDERMEN.

THE FOLLOWING HAVE NOT PASSED THE CHAIR.

Wood, Thomas, Esq., Cordwainer; 3, Corbet-court, Gracechurch-street	1835
Carroll, Sir George, Kt., Candlewick; 34, Cavendish-square	.. 1840
Hoopes, John K., Esq., Queenhithe; 20, Queenhithe	.. 1840
Duke, Sir James, Kt., M.P., Farringdon Without; Botolph-lane	.. 1840
Farncomb, Thomas, Esq., Bassishaw; Griffin's Wharf, Southwark	.. 1840
Mugrove, John, Esq., Broad-street; 18, Old Broad-street	.. 1842
Hunter, William, Esq., Coleman-street; 10, Finsbury Circus	.. 1843
Challis, Thomas, Esq., Cripple-gate; 32, Wilson-street, Finsbury	.. 1843
Hughes, Hughes William, Esq., Bread-street; 17, Great Distaff-lane	.. 1843
Sidney, Thomas, Esq., Billingsgate; 8, Ludgate-hill	.. 1844
Moon, F. G. Esq., Portsoken; 20, Threadneedle-street	.. 1844

THE FOLLOWING HAVE PASSED THE CHAIR.

Hunter, Sir C. S., Bart., Bridge Without; 23, Euston-square	.. 1804
Lucas, M.P., Esq., Tower; 21, Water-lane	.. 1821
Thompson, W. Esq., M.P., Cheap; Upper Thames-street	.. 1821
Key, Sir John, Bart., Langbourn; 9, King's Arms-yard	.. 1823
Laurie, Sir Peter, Knt., Aldersgate; 7, Park-square, Regent's-park	.. 1825
Farebrother, C. Esq., Lime-street; 6, Lancaster-place, Strand	.. 1826
Copeland, W. Esq., M.P., Bishopsgate; 37, Lincoln's Inn-fields	.. 1829
Kelly, T. Esq., Farringdon Within; 17, Paternoster-row	.. 1830
Wilson, Samuel, Esq., Castle Bagnard; 24, St. Paul's Church-yard	.. 1831
Marshall, Sir C., Knt., Bridge Within; 43, Russell-square	.. 1832
Pirie, Sir John, Bart., Cornhill; 71, Cornhill	.. 1834
Humphrey, J. Esq., M.P., Aldgate; Hay's Wharf, Southwark	.. 1835
Magnay, Sir William, Bart., Vintry; College-hill	.. 1835
Gibbs, Michael, Esq., Walbrook; 33, Walbrook	.. 1838

Recorder, Hon. C. E. Law, Q.C., M.P.

Chamberlain, Anthony Brown, Esq.	Commissioner of Police, D. W. Harvey Esq.
Common Sergeant, J. Mirehouse, Esq.	Comptroller of Bridge House Estates, F. Brand, Esq.
Town Clerk, Mr. Serj. Mcwrether.	Sword Bearer, C. W. Hick, Esq.
Judge of Sheriffs Court, S. E. Bullock, Esq.	Common Crier, S. Beddome, Esq.
Common Pleaders, A. Ryland, H. Randall, Peter Laurie, and John Locke, Esqrs.	Water Bailiff, N. Saunders, Esq.
Comptroller, Thos. Saunders, Esq.	Surveyor, J. B. Bunning, Esq.
Remembrancer, E. Tyrrell, Esq.	Clerk to Lord Mayor, Mr. S. Goodman.
Solicitor, Charles Pearson, Esq.	Clerk to Sitting Justices, Mr. James A. Teague.
Coroner, William Payne, Esq.	City Marshals, Messrs. N. Browne, T. Theobalds.
Clerk of the Peace, John Clark, Esq.	Bridge Masters, Messrs. J. Watson, and David Gibbs.
Bailiff of Southwark, Wm. Pritchard, Esq.	

## INSOLVENT DEBTORS' COURT.

Chief Commissioner, H. R. Reynolds, Esq.  
Commissioners, J. G. Harris, William J. Law, and D. Pollock, Esqrs.  
Provisional Assignee, S. Sturges, Esq.  
Chief Clerk, J. Massey, Esq.  
Tax Master, H. C. Richards, Esq.  
Clerk of the Rules, C. V. White, Esq.

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#### LORDS COMMISSIONERS.

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Secretaries, Edw. Cardwell, Esq., John Young, Esq., M.P.	Chief Clerk, Peter Smith, Esq.
Assistant Secretary, C. E. Trevelyan, Esq.	Private Secretary, Col. the Hon. E. B. Wilbraham.
Solicitor, G. Maule, Esq.	IRISH OFFICE.
Paymaster, W. Sargent, Esq.	Chief Secretary, Sir T. Fremantle, Bart.
Chief Clerk, S. R. Leake, Esq.	Chief Clerk, Geo. Trundle, Esq.
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Accountant, J. Miller, Esq.	Private Secretary, Capt. S. Fremantle, R.N.

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Chancellor, Rt. Hon. H. Goulburn.	Chief Secretary, Sir T. Fremantle, Bart.
Comptroller, Lord Montague.	Chief Clerk, Geo. Trundle, Esq.
Assistant, A. Eden, Esq.	Assistant, Hon. S. D. Montague.
Chief Clerk, F. T. Ottey, Esq.	Private Secretary, Capt. S. Fremantle, R.N.
Accountant, G. S. Frederick, Esq.	Counsel, C. Batty, Esq.

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Under Secretaries, S. M. Phillips, Esq., Hon. H. M. Sutton.	Chief Clerk, Peter Smith, Esq.
Chief Clerk, T. H. Plasket, Esq.	Private Secretary, Col. the Hon. E. B. Wilbraham.
Private Secretary, Capt. O'Brien.	IRISH OFFICE.

### FOREIGN OFFICE.

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Under Secretaries, Viscount Canning, H. U. Addington, Esq.	Chief Clerk, Peter Smith, Esq.
Chief Clerk, G. L. Conyngham, Esq.	Private Secretary, Col. the Hon. E. B. Wilbraham.
Private Secretary, C. G. Dawkins, Esq.	IRISH OFFICE.

### COLONIAL OFFICE.

Secretary of State, Lord Stanley.	Under Secretaries, G. W. Hope, Esq., Jas. Stephen, Esq.
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Under Secretaries, G. W. Hope, Esq., Jas. Stephen, Esq.	Chief Secretary, Sir T. Fremantle, Bart.
Chief Clerk, Peter Smith, Esq.	Chief Clerk, Geo. Trundle, Esq.
Private Secretary, Col. the Hon. E. B. Wilbraham.	Assistant, Hon. S. D. Montague.

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Chief Clerk, Geo. Trundle, Esq.	Assistant, Hon. S. D. Montague.
Assistant, Hon. S. D. Montague.	Private Secretary, Capt. S. Fremantle, R.N.
Private Secretary, Capt. S. Fremantle, R.N.	Counsel, C. Batty, Esq.

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W. Bowles, Hon. W. Gordon, the Hon. Hy. Fitzroy.	Chief Clerk, Geo. Trundle, Esq.



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Capt. W. A. B. Hamilton, R.N.  
Private Secretary, Capt. R. S. Dundas,  
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Hydrographer, Capt. F. Beaufort.  
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Civil Architect, Capt. Brandreth.  
Astronomer Royal, G. B. Airy, Esq.  
Assistant, Rev. R. Main, M.A.

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Assistant, John Eyde, Esq., F.R.S.  
Storekeeper, Hon. R. Dundas.  
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Accountant, J. T. Briggs, Esq.  
Deputy Accountant, O'Bryan Woolsey,  
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Inspector-General, Sir W. Burnett.  
Chief Clerk, B. Fosset, Esq.

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Deputy F. N. Rogers, Esq., Q.C.

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**HORSE GUARDS.**  
Commander-in-Chief, Duke of Wellin-  
gton.  
Private Sec., Alegro Greville, Esq.  
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F. Somerset.  
Aides-de-Camp, Col. Hon. G. Anson,  
Lieut-Col. Marquis of Douro, Cornet  
Earl of March, Cornet, Marquis of  
Worcester.  
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Assistant, Colonel Cochrane.  
Deputy, Major Roche Mead.  
First Clerk, R. Cannon, Esq.

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**HORSE GUARDS.**  
Quarter-Master General, General Sir J.  
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Assistant, Colonel J. Freeth.  
Deputy, Captain John Enoch.  
Confidential Clerk, J. O'Neill, Esq.  
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Surveyor-General, Colonel J. Peel.  
Clerk, Lord Arthur Lennox.  
Storekeeper, Sir Thomas Hastings.  
Secretary to Master-General, Major-Ge-  
neral Sir F. Trench.  
Secretary to Board, R. Byam, Esq.  
Aide-de-Camp, Henry Boyce, Esq.

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Busby Park, Queen Dowager.  
St. James's Park, Prince Albert.  
Hyde Park, H.R.H. Duke of Cambridge.  
Richmond Park, Duke of Cambridge.  
Greenwich Park, the Earl of Aberdeen.  
Hampton Court, Lady Bloomfield.  
New Forest, H.R.H. the Duke of Cam-  
bridge.  
Whitbury Forest, Duke of Grafton.  
Waltham Forest, Lord Wellesley.  
Wychwood Forest, Lord Churchill.

Dean Forest, Earl of Lincoln.

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Comptroller, W. H. Barton, Esq.  
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(By Patent) R. Eden, Esq.  
Junior Clerk, Mr. W. Goodwin.  
Keeper of Records, R. Eden, Esq.

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taries of State.  
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Deputies, T. H. Plasket, Esq., B. Taylor,  
Esq.  
Record Keepers, E. D. Jones, Esq., H.  
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H. F. Stephenson, Esq.; Hon. W. H.  
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Comptroller and Auditor, Vaughan  
Davies, Esq.  
Solicitors, Sir F. H. Doyle, C. M. Carr,  
Esq.

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Commissioners, C. P. Rushworth, Esq.,  
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Secretary, C. Pressly, Esq.  
Assistant Secretary, T. Keogh, Esq.  
Receiver General, W. Everett, Esq.  
Comptroller, T. Lightfoot, Esq.  
Comptroller of Legacy Duties, C. Tre-  
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Solicitor, Joseph Timm, Esq.  
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Esq., \*G. G. Otway, Esq., \*J. Burke,  
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B. Twisleton, Esq.,  
Chief Clerk, \*A. Moore, Esq.

**TITHE COMMISSION.**  
W. Blamire, Esq., T. W. Buller, Esq.,  
Rev. Richard Jones, M.A.  
**ASSISTANT COMMISSIONER.**  
Wm. Wakefield Attree, Esq.

**COLONIAL LAND AND EMIGRA- TION COMMISSIONERS.**  
9, Park-street, Westminster.  
T. F. Elliot, Esq., Charles Alex. Wood,  
Esq., J.G.S. Lefevre, Esq.  
Those distinguished by a \* are serving in Ire-  
land.

Secretary, S. Walcott, Esq.  
**ADMIRALTY COURT.**  
Admiralty Judge, Right Hon. S. Lush-  
ington, D.C.L.  
Registrar, H. B. Swabey, Esq.  
Queen's Advocate, Sir J. Dodson, L.L.D.  
Admiralty Advocate, J. Phillimore,  
D.C.L.  
Judge Advocate, H. J. Shepherd, Esq.  
Queen's Proctor, Francis Hart Dyke,  
Esq.  
Admiralty Proctor, W. Townshend, Esq.  
Marshal, John Deacon, Esq.  
Solicitor, Chas. Jones, Esq.  
**METROPOLIS ROADS.**  
Secretary, J. L. Panter, Esq.

Surveyor-General, Sir Jas. McAdam.  
Accountant, R. Robertson, Esq.  
Assistant, V. C. Wright, Esq.  
Inspector, H. Browne, Esq.  
Solicitor, J. W. Lyon, Esq.  
**OFFICE OF METROPOLITAN BUILDINGS.**  
Registrar, A. Symonds, Esq.  
Official Referees, James White Higgins,  
Esq., Wm. Hosking, Esq.  
**GENERAL REGISTER OFFICE.**  
Reg.-General, G. Graham, Esq.  
Chief Clerk, Thomas Mann, Esq.  
First Clerk of Records, E. Edwards,  
Esq.

## FOREIGN AMBASSADORS AND CONSULS IN ENGLAND.

**AMERICA, UNITED STATES OF.**  
Consulate Office, 1, Bishopsgate Churchyard.  
Envoy Extraordinary and Minister Plenipotentiary, His Excellency Louis  
Mc Lane, Esq., 38, Harley-street, Cavendish-square.  
Consul, Colonel Thomas Aspinwall, 1, Bishopsgate Churchyard.  
Agent for the Legation, Mr. J. Miller, 26, Henrietta-street, Covent-garden.

**AUSTRIA.**  
Ambassador Extraordinary and Plenipotentiary, his Excellency Count Maurice  
Dietrichstein, Chandos-house.  
Consul General, Lionel N. de Rothschild, New-court, St. Swithin's-lane.

**BRAZILS.**  
Minister, Commandeur Jose Marques Lisboa.  
Vice Consul in London, Antonio da Costa, 148, Fenchurch-street.

**BAVARIA.**  
Consulate Office, 11, Bury-court, St. Mary Axe.  
Envoy Extraordinary and Minister Plenipotentiary, Baron de Cetto, 3, Hill-street,  
Berkeley-square.  
Consul General, Adolphus Frederick Schaezler, Esq.

**BADEN.**  
Consulate, 1, Riches-court, Lime-street.  
Consul, John Simson.

**BELGIUM.**  
Consulate Office, 3, Copthall-court, Throgmorton-street.  
Envoy Extraordinary and Minister Plenipotentiary, M. Sylvain Van de Weyer,  
K.C.H., 50, Portland-place.  
Consul, H. Castellain.

**BUENOS AYRES.**  
Consular Office, 1, Winchester-buildings, Old Broad-street.  
Minister Plenipotentiary, Don Manuel Moreno, 23, Upper Wimpole-street, Cav-  
endish-square.  
Consul General, G. F. Dickson, 20, Hanover-terrace, Regent's Park.

**DENMARK.**  
Minister, his Excellency Count Reventlow, 52, Wilton-crescent.  
Consul General, Fletcher Wilson, 6, Warrford-court, Throgmorton-street.

**FRANCE.**  
Consulate Office, 3, Copthall-buildings, Throgmorton-street.  
Ambassador Extraordinary and Minister Plenipotentiary, His Excellency Count  
St. Aulaire.  
Consul General, Durant St. André, 44, Montague-square.

**FRANKFORT-ON-THE-MAINE.**  
Consulate Office, 12, Broad-street-buildings.  
Consul, John George Behrends.

**GREECE.**  
Consulate Office, 25, Finsbury-circus.  
Consul-General, Pandia Ralli, 25, Finsbury-circus.

**HANOVER.**  
Consulate Office, 6, Circus, Minories.  
Minister, Count Kielmannsegg, 44, Grosvenor-place.  
Consul General, Sir J. Hall, K.C.H., St. Katherine's Dock-house.

**MEXICO.**  
Consulate Office, 1, Great Winchester-street, City.  
Minister and Envoy Extraordinary, Don Tomas Murphy, 7, Sussex-place,  
Regent's-park.

**NETHERLANDS.**  
Every Extraordinary and Minister Plenipotentiary, M. Dedel, 25, Wilton-crescent.  
Consul General, J. W. May, 123, Fenchurch-street.

**NEW GRENADA.**  
Chargé d'Affaires, M. M. Mosquera, 52, Baker-street, Portman-square.  
Consul, Im. Suenz, Esq., 3 Winchester-buildings, Great Winchester-street, Old  
Broad-street.

**OLDENBURGH.**  
Consulate Office, 48, Fenchurch-street.  
Consul General, H. F. Tiarks.

**PORTUGAL.**  
Consular Office, 5, Jeffrey's-square.  
Envoy Extraordinary, Baron da Torre de Moncorvo, 57, Upper Seymour-street.  
Consul General, F. I. van Zeller, 40, Dorset-square.

**PRUSSIA.**  
Consulate Office, 106, Fenchurch-street.  
Envoy Extraordinary and Minister Plenipotentiary, Chevalier Bunsen.  
Consul General for Great Britain and Ireland, Chevalier B. Hebel, K.R.E., 15,  
York-place, Baker-street.



# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## RUSSIA.

Consulate Office, 2, Winchester-buildings, Old Broad-street.  
Ambassador Extraordinary and Plenipotentiary, Baron de Brunow, Ashburnham-house, Dover-street, Piccadilly.  
Consul General, George Krehmer, Esq.

## SARDINIA.

Consulate Office, 31, Old Jewry.  
Minister, H. E. the Count de Polign, 11, Lower Grosvenor-street.  
Consul General, J. B. Heath, 66, Russell-square.

## SAXONY.

Consulate Office, 76, Cornhill.  
Resident Minister, Baron de Gersdorff, Chester-square, Piccadilly.  
Consul General, James Colquhoun, 12, St. James's-place.  
**HANSEATIC REPUBLICS OF LUBECK, BREMEN, AND HAMBURG.**  
Diplomatic Agent and Consul General, James Colquhoun, Esq., 12, St. James's-place; Consulate Office, 76, Cornhill.

## SICILY.

Consulate Office, 13, Cambridge-street, Hyde Park-square.  
Ambassador Extraordinary, Prince de Castellejal, 15, Princes-street, Cavendish-square.  
Consul General, Henry Swenburn Minasi.

## SPAIN.

Envoy Extraordinary and Minister Plenipotentiary, the Duke of Sotomayor, 9, Cavendish-square.  
Consulate, 37, Old Broad-street.  
Consul General, Chevalier Don Jose Maria Barriero.

## SWEDEN AND NORWAY.

Consulate Office, 2, Crosby-square.  
Chargé d'Affaires, Baron de Rehausen, 11, Halkin-court, West.  
Consul General, Charles Tottie, Esq., 52, Montague-square.

## SWITZERLAND.

Consul Office, a 24, Gresham-street.  
Agent and Consul General, J. L. Prevost.  
Vice Consul, G. Prevost.

## TURKEY.

Ambassador Extraordinary, His Excellency Ali Effendi.  
Consulate Office, 1, Bryanstone-square.  
Consul General, Edward Zahrah, Esq., 1, Bryanstone-square.

## TUSCANY.

Consulate Office, 15, Angel-court, Throgmorton-street.  
Consul, James Christian Clement Bell.

## WURTEMBERG.

Consul General, Bernard Hebel, 15, York-place, Baker-street.  
Consulate Office, 106, Fenchurch-street.

## EAST INDIA COMPANY.

Six Directors are elected annually in April, when six go out by rotation. Each Dire tor serves four years. The figure prefixed denotes the number of years each has to serve.

### DIRECTORS.

- |  |                                    |
|--|------------------------------------|
| (2) Chairman, John Shepherd, Esq., Mansfield-street                              | (4) Macnaghten, Elliot, Esq.       |
| (3) Deputy Chairman, Sir Henry Wilcock, K.L.S., Little Campden House, Kensington | (1) Masterman, John, Esq., M.P.    |
| (2) Alexander, Henry, Esq.   | (4) Muspratt, John Petty, Esq.     |
| (1) Astell, William, Esq., M.P.  | (2) Oliphant, Major James          |
| (3) Bayley, W. Bunterworth, Esq.   | (3) Robertson, Major-Gen. Archd.   |
| (2) Bryant, Major-Gen. Sir Jeremiah  | (1) Smith, Martin, T. Esq.         |
| (4) Campbell, Sir Robert, Bart.  | (3) Sykes, Lieut.-Col. W. H.       |
| (1) Ellie, Russell, Esq.   | (2) Warden, Francis, Esq.          |
| (4) Galloway, Major-Gen. Archibald   | (3) Whiteman, John Claremont, Esq. |
| (3) Hogg, James Weir, Esq., M.P.   | (4) Wigram, William, Esq.          |
| (1) Jenkins, Sir Richard, G.C.B.   | (2) Young, Sir William, Bart.      |
| (4) Lushington, Major-Gen. Sir J. Law  |                                    |
| (4) Lyall, George, Esq., M.P.  |                                    |
- Secretary, James Cosmo Melville, Esq.  
Deputy-Secretary, John D. Dickinson, Esq.

## DISTANCES,

IN ENGLISH MILES.

### OF THE PRINCIPAL TOWNS FROM LONDON,

To which are added, these between some of the Continental Towns.

	Miles.		Miles.
Abbeville .. .. .	190	Havre, by Southampton .. ..	198
Aix-la-Chapelle .. ..	330	Heidelberg .. .. .	589
Amsterdam .. .. .	248	Kehl .. .. .	684
Arnheim .. .. .	270	Leghorn .. .. .	1240
Baden-Baden .. .. .	650	Leipzig, from Frankfort O. M.	210
Basel .. .. .	780	Liege .. .. .	300
Berlin .. .. .	644	Lyons, from Paris .. .. .	290
Berlin, from Hamburg ..	175	Mainz .. .. .	517
Berse .. .. .	830	Mannheim .. .. .	571
Bieberich .. .. .	510	Milan .. .. .	942
Bonn .. .. .	420	Milan, from Venice .. .. .	200
Bordemx, from Paris .. .	346	Magdeburg, from Hamburg ..	157
Breslau, from Berlin .. .	202	Magdeburg, from Leipzig ..	74
Breslau, from Dresden ..	154	Magdeburg, from Dresden ..	134
Brussels .. .. .	250	Marseilles, from Paris .. .	500
Carlsruhe .. .. .	625	Munich, from Frankfort O. M.	214
Caub .. .. .	485	Munich, from Vienna .. ..	276
Coblentz .. .. .	458	Moscow .. .. .	1396
Cologne .. .. .	400	Naples .. .. .	1450
Constance .. .. .	820	Neurenberg, from Frankfort O. M.	126
Dijon, from Paris .. ..	318	Neurenberg, from Leipzig ..	159
Dresden, from Prague ..	94	Offenburg .. .. .	698
Dusseldorf .. .. .	568	Prague, from Vienna .. ..	196
Elbefeld .. .. .	388	Prague, from Frankfort O. M.	290
Emmerich .. .. .	390	Prague, from Dresden .. .	94
Florence .. .. .	1,660	Paris, by Brighton .. ..	241
Frankfort O. M. .. ..	544	Paris, by Southampton .. .	340
Frieberg .. .. .	739	Rome .. .. .	1380
Gand .. .. .	177	Rouen, by Brighton .. ..	157
Geneva .. .. .	1080	Rouen, by Southampton ..	256
Gratz, from Vienna .. .	120	Stuttgart .. .. .	678
Heue .. .. .	212	Schaffhausen .. .. .	790
Havre, by Brighton .. .	137	St. Petersburg, from Berlin	1060

	Miles.		Miles.
Strasbourg, from Paris ..	245	Vienna, from Trieste .. ..	319
Trieste, from Venice .. ..	319	Venice, from Milan .. ..	200
Utrecht .. .. .	230	Wiesbaden .. .. .	520
Vienna, from Frankfort O. M.	437	Zurich .. .. .	830

## BANK OF ENGLAND.

The alteration in the Bank Direction takes place in April.  
GOVERNORS.

John Benjamin Heath, Esq., Governor.  
William R. Robinson, Esq., Deputy-Governor.

### DIRECTORS.

Chipman, Edward Henry, Esq.  
Cotton, William, Esq.  
Greuffell, Charles Pascoe, Esq.  
Gower, Abel Lewes, Esq.  
Hanson, John Oliver, Esq.  
Hodgson, Kirkman Daniell, Esq.  
Holland, Henry Laneclot, Esq.  
Huddard, John Gellibrand, Esq.  
Hunt, Thomas Newman, Esq.  
Huth, Charles Frederick, Esq.  
Latham, Alfred, Esq.  
Lisle, William, Esq.  
Malcolmsen, James, Esq.  
Morris, James, Esq.  
Norman, George Warde, Esq.  
Pattison, James, Esq.  
Pearse, Christopher, Esq.  
Pelly, Sir John Henry, Bart.  
Powell, David, Esq.  
Reid, Sir John Rae, Bart.  
Sirth, Thomas Charles, Esq.  
Thompson, William, Esq. & Alderman.  
Weguelin, Thomas Matthias, Esq.  
Wilson, Francis, Esq.  
Secretary, John Knight; Dep. Sec., John Bentley; Assistant, James Stewart;  
Chief Accountant, William Smees; Deputy, George Earle Gray; Assistant, J. P. Noble; Chief Cashier, Matthew Marshall; First Assistant, J. R. Elsey; Second Assistant, Thomas Bros.

THE BANK OF ENGLAND HAS BRANCH ESTABLISHMENTS IN THE FOLLOWING TOWNS.  
Birmingham—Bristol—Gloucester—Hull—Leeds—Liverpool—Manchester—Newcastle-upon-Tyne—Norwich—Plymouth—Portsmouth—Swansea—Leicester.

## LONDON BANKERS.

Bank of England, Threadneedle-street  
Bank of Australia, 2, Moorgate-street  
Bank of British North America, 7, St. Helen's-place, Bishopsgate Within  
Bank of Ceylon, 72, Old Broad-street  
Barclay, Bevan, and Tritton, 54, Lombard-street  
Barnard, Dimsdale, Barnard and Co., 59, Cornhill  
Barnett, Hoare, and Co., 62, Lombard-street  
Bosmanquet, Anderton, Franks, and Co., 73, Broad-street  
Bouverie, Norman, and Murdoch, 11, Haymarket  
British Colonial Bank and Loan Company, 50, Moorgate-street  
Brown, Janson, and Co., 32, Abchurch-lane  
Buet, James, Son, and Co., 85 and 86, Cheapside  
Call, Sir W. P., Marten, and Co., 25, Old Bond-street  
Champion and Co., 11, West Smithfield  
Child and Co., 1, Fleet-street, Temple Bar  
Cocks, Biddulph, and Co., 43, Charing Cross  
Cockburn and Co., 4, Whitelall  
Colonial Bank, 13, Bishopsgate Within  
Commercial Bank of London, 3, Moorgate-street, and 5 and 6, Henrietta-street, Covent-garden  
Counts and Co., 59, Strand  
Cunliffe, Brooks, and Co., 29, Lombard-street  
Cunliffe, Roger, 34, Bucklersbury  
Curries and Co., 29, Cornhill  
Davies, Robt., and Co., 187, Shoreditch  
De Lisle, Janvrin, and Co., 16, Devonshire-square, Bishopsgate  
Denison, J., Heywood and Co., Lombard-street  
Dixons, Brooks, and Dixon, 25, Chancery-lane  
Drewett and Fowler, 4, Princes-street, Bank  
Drummonds and Co., 49, Charing Cross  
Felltham, John, and Co., 42, Lombard-street  
Fullers and Co., 65, Moorgate-street  
Glyn, Sir R. Carr, Bart., and Co., 67, Lombard-street  
Goslings and Sharpe, 19, Fleet-street  
Hanburys, Taylor, and Lloyd, 60, Lombard-street  
Hankays and Co., 7, Fenchurch-street  
Herries, Farquhar, and Co., 16, St. James's-street  
Hill and Sons, 17, West Smithfield  
Hoares, 37, Fleet street  
Hopkinson, Barton, and Co., 3, Regent-street, Waterloo-place  
Ionian Bank, 6, Great Winchester-street  
Ireland, Provincial Bank of, 42, Old Broad-street  
Ireland, National Bank of, 13, Old Broad-street  
Johnston and Co., 15, Great Bush-lane  
Jones Loyd, and Co., 43, Lothbury  
Jones and Son, 41, West Smithfield  
Kinloch, G. F. and Sons, 1, New Broad-street  
London and Dublin Bank, 19, and 20, Austin Friars  
London Joint Stock Bank, Princes-street, Bank, and 69, Pall-Mall  
London and Westminster, Lothbury  
9, Waterloo-place,  
213, High Holborn  
3, Wellington-street, Borough  
87, High-street, Whitechapel  
Stratford-place, Oxford-street  
London and County Joint Stock Banking Company, 71, Lombard-street, and 37, West Smithfield  
Lubbock, Sir J. W., and Co., 11, Mansion-house-street  
Martin, Stones, and Martin, 68, Lombard-street  
Maserman, Peters, and Co., 35, Nicholas-lane  
National Provincial Bank of England, 112, Bishopgate-street Within  
Pickstock and Co., 39, Clement's-lane  
Præd, Fane, Præd, and Johnson, 189, Fleet-street  
Prescott, Grote, Ames, and Co., 62, Threadneedle-street  
Price, Sir C., Bart., and Co., 3, King William-street  
Pocklington and Lacy, 60, West Smithfield  
Puget, Bainbridge, and Co., 12, St. Paul's  
Ransom and Co., Pall-mall East  
Roberts, Curtis, and Co., 15, Lombard-street  
Rogers, Olding, and Co., 29, Clement's-lane  
Royal Bank of Australia, 2, Moorgate-street, City  
Scott, Sir C., Bart., and Co., 1, Cavendish-square  
Smithfield Agency and Banking Company, 59, West Smithfield  
Smith, Payne, and Co., King William-street  
Stallard, W. H., 76, West Smithfield  
Strahan, Pauls, and Bates, 217, Strand  
Spooners, Atwood, and Co., 27, Gracechurch-street  
Stevensson, Salt, and Sons, 20, Lombard-street  
Stone, Martin, and Stones, 68, Lombard-street  
Stride and Sons, 6, Copthall-court  
Tisdale, T. G., 15, West Smithfield  
Twinnings, Rich., G. J. A., and Nich., 215, Strand  
Vere, Sapte, Banbury, and Co., 77, Lombard-street  
Weston and Young, Wellington-street, Borough  
Williams, Deacon, and Co., 20, Birehnlane  
Willis, Percival, and Co., 76, Lombard-street  
Union Bank of London, 8, Moorgate-street  
Argyll-place, Regent-street, and Pall-Mall, East



## GENERAL POSTAL REGULATIONS.

## HEADS OF DEPARTMENTS.

Postmaster General, Earl Lonsdale; Secretary, Lieut.-Col. W. L. Maberly; Assistant Secretary, T. Lawrence, Esq.; Chief Clerk to the Secretary, J. Campbell, Esq.; Solicitor, Mark B. Peacock, Esq.; Surveyor and Superintendent of Mail Conveyance and Guards, G. Stow, Esq.; Accountant General, C. T. Court, Esq.; Receiver General, T. Young, Esq. Inspector of Ship Letters, G. Hindlestone, Esq.; Inspector of the Dead Letter Office, K. Newton, Esq.; President of the Money Order Office, W. Barth, Esq.; Superintending-president of the Inland and Foreign Department, W. Bokenham, Esq.; Inspector of the Carriers (general post), F. Kelly, Esq.; Superintending-president of the London District Post, R. Smith, Esq.

## INLAND REGULATIONS.

## RATES OF POSTAGE.

All letters from one part of Great Britain to another (including the Local Penny Posters and the London Twopenny Post) are charged by weight as follows, if prepaid:—

Not exceeding half an ounce	..	..	1d.
Exceeding half an ounce, and not exceeding 1 ounce	..	..	2d.
.. 1 ounce	.....	2 ounces	.. 4d.
.. 2 ounces	.....	3 ounces	.. 6d.

and so on at the rate of 2d. for every additional ounce or fraction of an ounce.

Unpaid and unstamped letters, are charged double postage on delivery; letters insufficiently paid or stamped, are charged double the amount of such insufficiency on delivery.

Letters or packets exceeding 16 ounces in weight not forwarded—except, Parliamentary petitions and addresses to Her Majesty

Parliamentary proceedings

Letters or packets addressed to, or received from, places beyond sea

Letters or packets to and from public departments and public officers.

## PRICES OF STAMPS.

At A Post Office.—Labels, 1d. and 2d. each; Covers, 2s. 3d. per two dozen.

At A STAMP DISTRIBUTOR'S, as above, or as follows.—Half-ream, or 240 Penny Covers, £1 2s. 4d.—Penny Envelopes, £1 1s. 9d. Quarter-ream, or 120 Twopenny Covers, £1 1s. 4d.—Twopenny Envelopes, £1 1s. 1d.

At THE STAMP OFFICES in London, Dublin, and Edinburgh, as above, or as follows.—2 Reams, or 960 Penny Covers, £4 7s.—Penny Envelopes, £4 5s. 1 Ream, or 480 Twopenny Covers, £4 3s. 6d.—Twopenny Envelopes, £4 2s. 6d. Covers may be had at these prices, either in sheets or cut ready for use. Envelopes in sheets only, and consequently not made up. No one, unless duly licensed, is authorised to sell postage stamps.

The Penny Stamp carries half an ounce (inland), the Twopenny Stamp one ounce. For weights exceeding one ounce, use the proper number of labels, either alone, or in combination with the Stamps of the Covers or Envelopes.

## HOURS OF POSTING.

## FOR THE EVENING MAILS.

The receiving houses close at 5 30 P.M. Letter carriers ring bells and take letters in the streets to go by the evening mails from 4 30 to 5 30 P.M. (with such letter one penny fee is charged as a perquisite to the postman). Letters are received for the evening's dispatch at the Branch Post-offices at Charing-cross, Old Cavendish-street, and 108, Blackman-street, Southwark, until 6 P.M., and, with a fee of one penny, which must be paid by affixing a stamp to the letter, until 6 45 P.M. At the Branch Post-office in Lombard-street, the box remains open without additional fee until 6 P.M., and until 7 P.M., by affixing a penny stamp. At the General Post-office in St. Martin's-le-grand until 6, free, and 7 by payment of the extra charge as at Lombard-street. From 7 to half-past 7 P.M., letters may be posted there upon payment of a fee of sixpence each, which must, as well as the postage, be prepaid. Letters intended to pass by outward mails to foreign parts must be posted at the above hours. In the case of Colonial and ship letters, however, there is this difference.—The "late" fee of one penny must be paid in money. Foreign letters are taken in at the Branch offices as follows:—Tuesdays and Fridays at Charing-cross, Old Cavendish-street, and 108, Blackman-street, Southwark, until 1 P.M.; at the office in Lombard-street, and the General Post-office in St. Martin's-le-grand, only from 10 15 P.M., on payment of a fee of one penny, and from 10 15 P.M., till 10 30, on payment of a fee of sixpence.

N.B. Newspapers for the evening mails must be put into the receiving houses before 5 P.M., the Branch offices before 5 30, or General Post-office before 6 P.M. They may also be posted by letter carriers ringing bells from 4 30 P.M. to 5 30 P.M. with the penny fee to the postman. From 6 P.M. to 7 30, they may be put into the office on the left hand side of the portico, and at the nearest window to it on the western front on payment of one halfpenny late fee. Subjoined is a list—the latest officially published—of the post towns to which bags are made up per morning mails.

Abingdon	Brighton	Darlington
Accrington	Bristol	Dartford
Alnwick	Brough	Darenty
Andover Road	Buckingham	Derby
Appleby	Burnley	Dorking
Ashford	Bury St. Edmund's	Dover
Attleborough	Cambridge	Dunmow
Banbury	Canterbury	Dunsley
Bangor	Carlisle	Durham
Bath	Carnarvon	Ely
Barnsley	Charlham	Easter
Basingstoke	Chelmsford	Fairford
Battle	Cheltenham	Farcham
Beaumaris	Chepstow	Farrington
Belford	Chester	Felton
Belper	Chester-le-Street	Fenny Stratford
Berkhamstead	Chesham	Faversham
Berwick	Chilmenham	Folkstone
Bilston	Chorley	Gateshead
Birmingham	Cirencester	Gloucester
Bishops Cleeve	Cirencester	Godalming
Blackburn	Cockermouth	Gosport
Bolton	Cockchester	Grantham
Brackley	Conway	Gravesend
Bradford, Yorks	Coventry	Guernsey
Brandon	Cowes	Guildford
Brentwood	Cranbrook	Halifax
Bridgewater	Cuckfield	Hastings

Hemel Hempstead	Nottingham	Swindon
Hertford	Northallerton	Taunton
Highworth	Oxford	Tenterden
Hoddesdon	Penrith	Tetbury
Holyhead	Porthsmouth	Thetford
Holywell	Preston	Thirsk
Huddersfield	Preston Brook	Towcester
Hurst Green	Pwllhel	Tring
Ilythe	Ramsgate	Tunbridge
Ipswich	Reading	Tunbridge Wells
Jersey	Reigate	Uxbridge
Kelvedon	Rickmansworth	Wakefield
Kendal	Ripon	Wallingford
Kenilworth	Rochdale	Walsall
Lancaster	Rochester	Ware
Leamington	Rotherham	Warrington
Lechlade	Rugby	Warwick
Leeds	Ryde	Watford
Leicester	Saffron Walden	Wednesbury
Leighton Buzzard	Seven Oaks	Woodon
Lewes	Sheffield	Wellington, Salop
Liverpool	Shifnal	Wellington, Som.
Loughboro'	Sittingbourne	West Bromwich
Maldenhead	Shorcham	Whitehaven
Maidstone	Shrewsbury	Wigan
Manchester	Slough	Wigton
Margate	South Shields	Winchester
Maryport	Southampton	Windsor
Melton Mowbray	Staplehurst	Witham
Milnthorpe	St. Alban's	Wolverhampton
Mold	St. Asaph	Worlington
Monmouth	St. Leonard's	Worthing
Morpeth	Stafford	Wotton-under-Edge
Newcastle, Staff.	Stockport	Wymondham
Newcastle-on-Tyne	Stony Stratford	Yarmouth
Newmarket	Stratford-on-Avon	York
Newport, I. of W.	Stroud	
Newport Pagnel	Sunderland	All Ireland
Northampton		All Scotland
North Shields		
Norwich		

For all the above places, the letter boxes at the Receiving Houses will be open till seven, A.M. for the newspapers, and eight, A.M. for letters; and those at the Branch Offices, Charing-cross, Old Cavendish-street, and the Borough, for newspapers until half-past seven, A.M., and for letters until eight, A.M. At the General Post Office and the Branch Office in Lombard-street, the boxes will close for newspapers at a quarter before eight, A.M., and for letters at half-past eight, A.M.

## LETTER-RATES TO PLACES BEYOND THE LIMITS OF THE UNITED KINGDOM.

## WEST INDIA AND AMERICA RATES.

PACKET RATES, paying the Postage optional, excepting those places marked \*, which must be paid with. Under half oz.

North America, viz.:—Quebec, Montreal, and all parts of \*Canada; Nova Scotia (Halifax excepted). Prince Edward's Island, and New Brunswick, conveyed direct by the contract packets (being one shilling packet postage, and twopenny uniform interval colonial rate) .. 1 2  
Halifax, Newfoundland, \*New York, the Bermudas, and the \*United States .. 1 0  
British West Indies, &c., including Kingston (Jamaica), Barbadoes, New Providence, Turk's Island, Bahamas, Antigua, Carriacou, Demerara, Dominica, Grenada, St. Lucia, Monserrat, Nevis, St. Vincent's, St. Kitt's, Tobago, Tortola, and Trinidad .. 1 0  
Foreign West Indies, including \*Guadaloupe, \*Martinique, \*St. Thomas, \*Curacao, \*Surinam, \*St. Martin's, \*St. Croix, and Porto Rico .. 1 5  
Jamaica (all the island, except the packet-port, Kingston) and Barbice .. 1 2

Letters to the West Indies are forwarded at the above uniform rates from all parts of the United Kingdom.

All Letters addressed to North America will be considered as intended to be forwarded by the contract steam packets, and charged accordingly, unless the words, "By Private Ship" be plainly written on them.

## SHIP LETTER RATES.

The single uniform rate on letters between the United Kingdom and places beyond sea, when conveyed by private ships, is 8d., in whatever part of the United Kingdom the letters may be posted or delivered. This is the rate now taken on letters between the United Kingdom and the East Indies, &c., &c., when conveyed by private ship, the former distinction between these and other descriptions of ship letters having been abolished.

The rates of postage on "Ship," as on other letters are taken by weight:—

Under half an ounce	..	..	..	Single.
Under an ounce	..	..	..	Double.
Under two ounces	..	..	..	Quadruple.
Under three ounces	..	..	..	Sextuple and so on.

## PERSONS EXEMPT FROM SHIP LETTER POSTAGE.

The Owners, Charterers, or Consignees (resident in the United Kingdom), and the Owners, Consignees, and Shippers of Goods on board vessels inward bound, are entitled to receive their letters free from sea postage, to the extent collectively of six ounces in weight, by any one vessel to any one such person. In the case of vessels coming from Ceylon, the Mauritius, the East Indies, or the Cape of Good Hope, for an Owner, Charterer, or Consignee of such vessel, the letters may be collectively twenty ounces in weight. The Owner, Charterer, or Consignee, must be described as such on the address and superscription; and in the case of Owners, Shippers, or Consignees of goods, it must also appear by the Ship's Manifest that they have goods on board the vessel. Such persons are entitled to have their letters, which come within the above conditions, before the master of the vessel delivers the other letters in his charge to the post-office.

\* \* \* Every person who shall, with intent to evade any duty of postage,



falsely superscribe a letter as being the Owner, or the Charterer, or the Consignee of a vessel conveying the same, or as the owner, or the Shipper, or the Consignee of goods shipped in such vessel, shall for every such offence forfeit Ten Pounds.

#### MONEY.

Coin, if enclosed in letters at all, should be folded in paper, sealed, and then fastened to the inside of the letter; but to avoid risk, a money order should be used whenever practicable. A letter may be registered on the payment of 1s. only.

#### FOREIGN LETTERS.

The packet rates are too various to be enumerated here. As regards both foreign and colonial letters, there is no limitation as to weight. All sent outwards, with few exceptions, must be prepaid by money or by stamps; and those going by private ship must be marked "shipletter."

It is requested that all letters may be fully and legibly addressed, and posted as early as convenient. Also, that whatever kind of stamp may be used, it may invariably stand above the address, and towards the right hand side of the letter.

There are "made up" in London the following Mails, as specified by the notices to the public, issued by the Post-Master-General:—  
France, daily, due daily, under  $\frac{1}{2}$  oz., postage 10d.  
Belgium, daily, due daily, under  $\frac{1}{2}$  oz., postage 1s.

Holland, Tuesday and Friday, due Monday and Thursday, under  $\frac{1}{2}$  oz., postage 1s.

Hamburg, Sweden, and Norway, Tuesday and Friday, due Tuesday and Saturday, but usually arrive on previous day, under  $\frac{1}{2}$  oz., postage 6d., Sweden and Norway, postage 1s. 8d. under  $\frac{1}{2}$  oz.

Inland rates:—Dublin, twice a-day, due twice a-day.

Ditto, Waterford, daily, due daily.

Ditto, Donaghadee, daily, due daily.

Ditto, Guernsey and Jersey, Tuesday, Thursday, and Saturday, due Tuesday, Thursday, and Saturday.

Lisbon, Madeira, Vigo, Cadiz, Corunna, Oporto, and Gibraltar, 7th, 17th, and 27th, of every month.

Malta, Greece, and Ionian Islands, *via* Southampton, twice in each month, viz.:—on the 3rd and 20th of every month.

Syria, Egypt, and India, *via* Southampton, 3rd and 20th in each month.

Brazil, Buenos Ayres, Madeira, and Canary Islands, 1st Tuesday in each month. British North America, Bermuda, and United States, 3rd and 18th of every month, except in the winter months, December, January, February, and March, and then on the 3rd only.

Jamaica, Lecward Islands, Hayti, Porto Rico, and Cuba, mornings of the 2nd and 17th of every month.

Mexico, Panama, New Granada, and Venezuela, mornings of the 2nd of every month.

The Mails despatched for Vigo, Oporto, Lisbon, Cadiz and Gibraltar are forwarded by steam vessels from Southampton to Gibraltar.

The Mails of the 3rd and 20th in each month are forwarded by the same packet from Southampton to Alexandria; leaving Mails at Malta.

The Mails for Greece and the Ionian Islands are conveyed from Malta every fortnight, by steam packets, which start after the arrival of the Mails from England.

The Mails for Egypt and India are forwarded direct from Southampton on the 3rd and 20th of each month, by steam packets.

From August to January inclusive, the packet touches at Pernambuco and Bahia, on her outward passage to Rio Janeiro, and the other six months on her homeward.

#### RATES OF POSTAGE WITHIN BRITISH NORTH AMERICA.

Letters forwarded to or from British North America by the Liverpool packets, or by private ships, passing direct between the United Kingdom and British America, are charged with an uniform Colonial rate of twopence the half ounce when posted or delivered at any other towns than the ports of Halifax, Nova Scotia, or St. John's, Newfoundland.

#### MONEY ORDERS.

Orders for sums not exceeding £2 are charged threepence; not exceeding £5, sixpence; above £5 no money order can be obtained. They are granted and paid between the hours of ten and four daily: they are paid only to the person for whom they were obtained, but he may depute another person to receive the money by signing the order, and giving his deputy the christian and surname, the address, and occupation of the person who originally obtained the order, so that the deputy may be enabled to give those particulars when he presents the order at the office for payment. Persons residing in London should instruct their correspondents who may obtain money orders, to make them payable at the most convenient of the above offices, as money orders granted, bearing London only, can be paid only at the principal office, St. Martin's-le-Grand.

#### LONDON DISTRICT POST.

The following table shows the times at which letters are despatched from and to London, and to and from places within the limits of the London district post.

Letters must be posted at receiving-houses in London,

Morning, before 8 for the 10 o'clock dispatch

..	10	12	..
..	12	1	..
..	1	2	..
..	2	3	..
..	3	4	..
..	4	5	..
..	5	6	..
..	6	8	..
..	8	8 next morning.	..

At the principal office, St. Martin's-le-Grand, letters must be posted,

Morning, before 9 for the 10 o'clock dispatch,

quarter before	11	12	..
..	2	2	..
..	3	3	..
..	4	4	..
..	5	5	..
..	6	6	..
..	7	8	..
..	8	8 next morning.	..

The deliveries in the country commence immediately upon the arrival of the dispatch from London, except the 8 o'clock night dispatch, which is not delivered till the next morning. The time of arrival of the day-dispatches may be calculated by the distance from London, allowing the post to travel at about the rate of eight miles an hour. Letters for places on the main roads are delivered generally sooner than those for places at a distance from them; the deliveries occupy, according to distance from London, from one hour and a half to three

hours after the time of dispatch from London. Receiving-houses where the mail cart stops are also called sorting-offices: where there are other receiving-houses in the same place or town, letters are generally dispatched from the latter from a quarter to three quarters of an hour earlier than from the sorting-offices. There are no receiving-houses at those places having no time stated for dispatch to London.

By a recent Treasury warrant the following regulations respecting Foreign Postage were promulgated:—

To all the usual trading-ports of the Cape of Good Hope and Eastward of that Cape, including the Red Sea and Persian Gulf, and between any of the ports enumerated, except between Australia and New Zealand, a uniform rate of 1s. will be charged, on letters not exceeding half-an-ounce in weight [the weight allowed in the succeeding paragraphs].

The rate to the Eastern coast of the Isthmus of Panama is to be 1s.; to the Western coast of Panama or the Western coast of America, 2s.

To Iceland (except on the letters of soldiers and sailors, which are already lower), 6d.

British and Colonial papers between British Colonies, without passing through the United Kingdom to be free; except that 1d. may be allowed as a gratuity to the master of the vessel conveying them.

Newspapers, British, Foreign, or Colonial, passing between British or Colonial and Foreign Ports, and through the British post, to pay 2d.; if not through the British post, 1d.

Such papers passing between places in British North American or British West Indian Colonies, to pay a uniform inland rate of  $\frac{1}{2}$ d.

Each supplement to be charged as a separate newspaper, whether inclosed separately or not.

Belgian newspapers may be sent from Belgium through the United Kingdom to any Colonies, at a uniform rate of British postage of 1d. each.

No newspaper, price-current, or commercial list, shall be conveyed by the post under the regulations of this warrant, unless the same shall be sent without a cover, or in a cover open at the sides, and unless there be no writing or mark upon it except the name and address of the person to whom sent.

The Postage rate to Hanover is altered to a uniform British rate of 6d.; prepayment of the whole postage of British and Foreign rates optional. Newspapers, 1d.

#### NEWSPAPERS.

As complaints are continually made that newspapers sent by post are frequently lost, it may not be amiss to state, that the following order on the subject is periodically issued by the authorities, as a caution to letter-carriers and others:—

"General Post-office.—The complaints on the subject of missing newspapers, stated to have been committed to the post, continue to be so numerous, that, although the Postmaster-General is satisfied that much of the irregularity complained of arises from causes beyond the control of the Post-office, his lordship thinks it expedient that every one engaged in the Post-office service should be made acquainted with the 32nd section of the 1st Vic., cap. 36, by which it is provided, 'That every person employed in the Post-office, who shall steal, or shall wilfully detain or delay in course of conveyance or delivery, any printed votes or proceedings in Parliament, or any printed newspaper, or any other printed paper whatever sent by the post, shall be guilty of a misdemeanour, and, being convicted thereof, shall suffer such punishment, by fine or imprisonment, or by both, as to the court shall seem meet.' And his lordship further desires it may be distinctly understood, that every individual acting, in any capacity, in the service of the Post-office, who shall be guilty of such an offence, will be prosecuted with the utmost rigour of the law."

#### NEW LINES OF STEAM VESSELS.

British enterprise has now established steam communication with the following countries:—To Russia, Sweden, and Denmark, by the Hull line; to St. Petersburg; to North Germany, by the Hull and London lines to Hamburg; to Holland, Belgium, and France, by the General Steam Company's vessels; to the north and south of Spain and to Portugal, by the Peninsular Company's vessels; to Italy, by the new line from London to Leghorn; to Malta, the Levant, and Constantinople, by the new line from Liverpool; to Egypt, Arabia, Ceylon, India, Singapore, and China, by the Oriental Steam Company's vessels; to British America and the United States, by the Cunard and Great Western lines from Liverpool; to the West Indies, Mexico, and the north coast of South America, by the West India line; to Peru and Chili by the West Coast line; to Brazil and the River Plate, by the line building in Liverpool. The only British colonies of any importance which have not now the advantage of steam communication with the mother country, are the Cape, the Mauritius, and Australian colonies.

#### PASSPORT OFFICES.

AMERICA (United States and Central America).—No passport required.  
AUSTRIA.—Embassy, 7, Chandos-street, Cavendish-square, between 12 and 2.  
BAVARIA.—The Minister, 3, Hill-street, Berkeley-square, when personally known to him; or the Consul, 11, Bury-court, St. Mary Axe.  
BELGIUM.—Legation, 9 A, Weymouth-street, Portland-place, between 11 and 3; delivered next day between 11 and 2, gratis; or the Consul's office, 3, Copthall-court, between 10 and 4—fee 5s.  
BRAZIL.—Legation, 10, York-place, Portman-square, between 12 and 2, gratis.  
DENMARK.—Consul's office, 6, Warrford-court, between 10 and 4—fee 10s 6d.  
FRANCE.—French passport-office, 6, Poland-street, Oxford-street, from 11 to 5; delivered next day between 1 and 3, on personal application, gratis; also at the Consul's office, 3, Copthall buildings, between 12 and 4—fee 10s.  
GREECE.—Consul's office, 25, Finsbury-circus, between 11 and 4—fee 2s. 6d.  
HANOVER.—Secretary to Embassy, 4, Hobart-place, Eaton-square, between 10 and 3; and at the Consul's office, 6, Circus, Minories, between 10 and 3, gratis.  
MEXICO.—Legation, 7, Sussex-place, Regent's-park, between 12 and 4; delivered following day.  
NAPLES AND SICILY.—Passport-office, 2, Old Cavendish-street, Mondays and Thursdays, between 10 and 12; delivered following day between 2 and 3, gratis; for persons going by sea, Consul's office, 15, Cambridge-street, Hyde Park-square, between 10 and 12—fee 10s.  
PORTUGAL.—Embassy, 57, Upper Seymour-street, Bryanstone-square, between 11 and 4, delivered following day; also at Consul's office, 15, St. Mary Axe.  
PRUSSIA.—Consul's office, 106, Fenchurch-street, between 10 and 6—fee 7s.  
RUSSIA.—Consul's office, 2, Winchester-buildings, between 10 and 4; delivered following day—fee 6s. 4d.  
SPAIN.—Visas to Foreign Office. Passports to British subjects, at the Legation, between 11 and 3 gratis; passports to natives at the same time and place.  
SWEDEN AND NORWAY.—Embassy, 66, Mount-street, Berkeley-square, between 9 and 1; delivered following day—fee 5s.  
TURKEY.—Embassy, 1, Bryanstone-square, between 12 and 3 every day, except Friday and Sunday, gratis.  
TUSCANY.—Consul's Office, 15, Angel-court, Throgmorton-street, between 10 and 4, gratis.



# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## OLD BAILEY SESSIONS, 1846.

Monday .. .. .	January 5	Monday .. .. .	June 15
" .. .. .	February 2	" .. .. .	July 6
" .. .. .	February 23	" .. .. .	August 17
" .. .. .	March 30	" .. .. .	September 21
" .. .. .	May 11	" .. .. .	November 26

## RATE OF ALLOWANCE TO WITNESSES ON TRIALS, FOR ATTENDANCE AND EXPENSES, PER DAY.

Surgeons, Surveyors, Attorneys ..	1	Tradesmen .. .. .	£0 15
Merchants .. .. .	1	Journeyman Mechanics ..	0 7
For Travelling .. .. .	1s. per mile	The Attorney in the Cause ..	1s. 3d.

## EXHIBITIONS AND OTHER PUBLIC PLACES OPEN GRATUITOUSLY.

**THE TOWER OF LONDON.**  
**THE BRITISH MUSEUM.**—Monday, Wednesday, and Friday, and the whole of Easter and Whitsun weeks except Saturday, from 10 to 4; from May to September, 10 to 7; closed the first week in January, May, and September, and on Christmas Day, Good Friday, and Ash Wednesday. Children under eight years of age not admitted.

**UNITED SERVICE MUSEUM,** Middle Scotland Yard.—Daily, with orders from members.

**NATIONAL GALLERY.**—Monday, Tuesday, Wednesday, and Thursday, and the whole of Easter and Whitsun weeks except Saturday, from 10 till 5; closed for six weeks from the end of the second week in September, and on Christmas Day and Good Friday.

**ST. PAUL'S.**—Each week-day from 9 to 11, and from 3 to 4; and on Sunday during the time of divine service.

**EAST INDIA HOUSE MUSEUM.**—Saturday, from 11 to 3; all the year, except in September.

**SOANE MUSEUM.**—Thursday and Friday during April, May, and June, from 10 to 4. Tickets must be applied for previously, and will be sent by post.

**SOCIETY OF ARTS.**—Any day except Wednesday, to strangers and mechanics.

**HAMPTON COURT PALACE.**—Every day from 10 till 4. Friday excepted.

**Kew Gardens.**—Pleasure Grounds, Sunday and Thursday, from 12 till sunset, from Midsummer to Michaelmas; the Botanical Gardens and Arboretum every day, to strangers, from 1 to 3, at any season.

**TEMPLE GARDENS.**—Every evening from June 18 to August 31, from 6 in the evening till dusk; and from 8 in the morning till dusk throughout the year on order from a bench.

**DULWICH GALLERY.**—Each week-day, except Friday, from 10 to 5 in summer, and from 11 to 3 in winter. Tickets to be had gratis of most of the respectable printsellers in London.

**COLLEGE OF SURGEONS' MUSEUM.**—Monday, Wednesday, and Friday, with orders from members.

## RAILWAYS. SECRETARIES AND PRINCIPAL OFFICES OF THE RAILWAYS OF GREAT BRITAIN AND IRELAND.

[Those with a \* prefixed received Parliamentary sanction last Session.]

NAME OF RAILWAY.	PRINCIPAL OFFICE.	NAME OF SECRETARY.
* Aberdare .. .. .	Aberdare	L. Lewis, Esq. V.
* Aberdeen .. .. .	85, Union-street, Aberdeen	
Arbroath and Forfar	Arbroath	John Macdonald, Esq.
Ardrossan .. .. .	Ardrossan	James Moffat, Esq.
Aylesbury .. .. .	Aylesbury	Henry Hatten and Aulton Tindal, Esqrs.
Ballochney .. .. .	Glasgow	Alex. J. Adie, Esq.
* Bedford and London and Birmingham	Bedford	Theed Pearce, Jun., Esq.
* Belfast and Ballymena	Belfast	Hugh Harrison, Esq.
Birmingham and Gloucester	Birmingham	Joseph Sanders, Esq.
* Bishop Auckland and Wearhead	Darlington	Thomas Mac Nay, Esq.
* Blackburn, Darwen, and Bolton	Blackburn	Fred. Wm. James, Esq.
Blackburn and Preston	Blackburn	Peter Sinclair, Esq.
* Brighton and Chichester	4, Dean-street, Tooley-street, London	Frederick Otley, Esq.
Brighton, Lewes, and Hastings	11, King William-street, London	Boyman Boyman, Esq.
Bristol and Exeter	Broad-street, Bristol	J. B. Badham, Esq.
* Caledonian .. .. .	Princes-street, Edinburgh	D. Rankine, Esq.
Chester and Birkenhead	Birkenhead	
Chester and Holyhead	62, Moorgate-street, London	George King, Esq.
* Cocker-mouth and Workington	Cockermouth	George Hy. Barnes, Esq.
* Cork and Brandon	Cork	John McDonnell, Esq.
* Dublin and Belfast Junction and Navan Branch	Dublin	Miles Reck, Esq.
Dublin and Drogheda	Dublin	
Dublin and Kingstown	Dublin	Thos. F. Bergin, Esq.
* Dundalk and Euniskillen	Dublin	Hatfield Nicholson, Esq.
Dundee and Arbroath	Dundee	Messrs. Shiell and Small
Dundee and Newtyle	Dundee	Richard Baird, Esq.
* Dunstable .. .. .	Euston Station, London	Thomas Long, Esq.
Durham and Sunderland	Sunderland	Michael Coxon, Esq.
Eastern Counties .. .. .	Shoreditch, London	Archd. Bulkeley, Esq.
Eastern Union .. .. .	Ipswich	Jas. F. Saunders, Esq.
East Lancashire .. .. .	Bury	Jas. Smithells, Esq.
Edinburgh and Glasgow	Glasgow	H. G. Wright, Esq.
Edinburgh, Leith, and Granton	Edinburgh	Allen Geo. Field, Esq.
* Ely and Huntingdon	Lynn, Norfolk	W. W. Williams, Esq.
* Exeter and Crediton	Exeter	Thos. Hartnoll, Esq.
Furness .. .. .	Old Palace Yard, Westminster	Arthur Currey, Esq.
Glasgow, Paisley, and Greenock	Greenock	James Tasker, Esq.

NAME OF RAILWAY.	PRINCIPAL OFFICE.	NAME OF SECRETARY.
Glasgow, Paisley, Kilmarnock, and Ayr	Glasgow	J. Fairfull Smith, Esq.
Grand Junction	Liverpool	Henry Booth, Esq.
* Gravesend and Rochester	15, New Broad-street, City	Frederick Collier, Esq.
Railway and Canal	Darlington	Major H. Parker
Great North of England	Dublin	Wm. Taylor, Esq.
Great Southern and Western (Ireland)	Paddington Station	C. A. Saunders, Esq.
Great Western	Hartlepool	George King, Esq.
Hartlepool Dock and Railway	Huddersfield	T. K. Rowbotham, Esq.
* Huddersfield and Sheffield Junction	Huddersfield	Edward Ledyard, Esq.
* Huddersfield and Manchester Railway and Canal	Hull	George Locking, Esq.
Hull and Selby .. .. .	Ipswich	Jas. F. Saunders, Esq.
* Ipswich and Bury St. Edmund's	Kendal	Thos. Hudson, Esq.
* Kendal and Windermere	Lancaster	S. E. Bolden, Esq.
Lancaster and Preston Junction	Lancaster	S. E. Bolden, Esq.
Lancaster and Carlisle	North Midland Station, Leeds	W. E. Greenland, Esq.
Leeds and Bradford	Leeds	Jas. Fenton, Esq.
* Leeds and Thirsk	Leeds	W. Eagle Bott, Esq.
* Leeds, Dewsbury, and Manchester	Leicester	G. W. Gill, Esq.
Leicester and Swannington	Liverpool	John Speir Heron, Esq.
* Liverpool and Bury	9, Old Jewry Chambers, London	R. Glascoed, Esq.
Llanelli .. .. .	Euston Station	Richard Creed, Esq.
London and Birmingham	London Bridge	R. S. Young, Esq.
London and Croydon	Nine Elms, London	Alfred Morgan, Esq.
London and South Western	London-bridge	T. J. Buckstone, Esq.
London and Brighton	10, Coleman-street, London	H. Adron, Esq.
London and Greenwich	London-bridge	J. F. Kennell, Esq.
London and Blackwall	Moorgate-street Chambers, London	F. H. Hemming, Esq.
* Londonderry and Coleraine	Ditto	Ditto
* Londonderry and Enniskillen	Lynn, Norfolk	W. W. Williams, Esq.
* Lynn and Dereham	Ditto	Ditto
* Lynn and Ely	Salford	
Manchester, Bolton, and Bury Canal Navigation and Railway	Manchester	John Latham, Esq.
Manchester and Birmingham	Manchester	P. L. Campbell, Esq.
Manchester and Leeds	Manchester	Thos. Mac Nay, Esq.
* Middlesbro' and Redcar	Darlington	John Fox Bell, Esq.
Midland	Derby	Alex. J. Adie, Esq.
Monkland and Kirkintilloch	Glasgow	
Newcastle-upon-Tyne and Carlisle	Forth, Newcastle-upon-Tyne	John Adamson, Esq.
Newcastle upon Tyne and North Shields	Newcastle-upon-Tyne	Wm. Swan, Esq.
Newcastle and Darlington Junction	York	John Close, Esq.
Norfolk .. .. .	Guildhall Buildings, London	Richard Till, Esq.
North British .. .. .	Edinburgh	C. F. Davidson, Esq.
North Union .. .. .	Preston	James Chapman, Esq.
North Wales Mineral	Cheshire	R. Roy, Esq.
Northern and Eastern	Shoreditch, London	Wm. Bourne, Esq.
* Nottingham, Erewash Valley, Ambergate, and Manchester	Nottingham	John Gough, Esq.
Pontop and South Shields	Guildhall Buildings, London	Richard Till, Esq.
Preston and Wyre Railway	Fleetwood	H. B. Jones, Esq.
Harbour and Dock	3, Moorgate-street, London	Richard Meade, Esq.
* Richmond .. .. .	Perth	Robert Bow. Ker, Esq.
* Scottish and Midland Junction	Perth	Robert D. Ker, Esq.
* Scottish Central	Manchester	John Platford, Esq.
Sheffield, Ashton-under-Lyne, and Manchester	Sheffield	J. H. Humfrey, Esq. (F.R.A.S.)
* Sheffield and Lincolnshire Junction	Sheffield	Robert Roy, Esq.
* Shrewsbury, Oswestry, and Chester Junction	Chester	Alex. J. Adie, Esq.
Slamannan .. .. .	Glasgow	Wm. Carr, Esq.
South Devon .. .. .	Exeter	Capt. W. O'Brien, R.E.
South Eastern (London and Dover)	London-bridge	
* South Wales .. .. .	449, West Strand, London	N. Armstrong, Esq.
* Southampton and Dorchester	Ringwood, Hants	F. A. Griffiths, Esq.
Stockton and Darlington	Darlington	Samuel Barnard, Esq.
St. Helens Canal and Railway	St. Helens	Arthur Sinclair, Esq.
Taff Vale .. .. .	Cardiff	A. F. Morcom, Esq.
Taw Vale Extension and Dock	5, Guildhall Chambers, London	G. H. Harris, Esq. (pro temp.)
Ulster .. .. .	Belfast	J. G. Smith, Esq.
* Waterford and Limerick	Waterford	W. S. Saunders, Esq.
* Wear Valley	Darlington	Thomas Mac Nay, Esq.
West London .. .. .	11, Abchurch-lane, London	John Thompson, Esq.
Whitehaven Junction	Whitehaven	Jas. Knipe, Esq.
Wilsontown, Morningside, and Coltness	Glasgow	Jas. Mitchell, Esq.
Wishaw and Coltness	St. Rollox, Glasgow	C. A. King, Esq.
York and North Midland	York	Wm. Gray, Junr., Esq.



# THE ILLUSTRATED LONDON ALMANACK FOR 1846.

## TABLE FOR COMPUTING BROKERS' COMMISSION.

No. of Share	At 6d. per Share.	At 1s. per Share.	At 1s. 3d. per Share.	At 1s. 6d. per Share.	At 2s. per Share.	At 2s. 6d. per Share.	At 3s. per Share.	At 3s. 6d. per Share.	At 4s. per Share.
£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
1	0 0 6	0 1 0	0 1 3	0 1 6	0 2 0	0 2 6	0 3 0	0 3 6	0 4 0
2	0 1 0	0 2 0	0 2 6	0 3 0	0 4 0	0 5 0	0 6 0	0 7 0	0 8 0
3	0 1 6	0 3 0	0 3 9	0 4 6	0 6 0	0 7 6	0 8 15	0 1 0	0 1 0
4	0 2 0	0 4 0	0 5 0	0 6 0	0 8 0	0 10 0	0 1 0	0 2 0	0 2 0
5	0 2 6	0 5 0	0 6 0	0 7 0	0 10 0	0 12 6	1 5 0	0 2 10 0	0 2 10 0
6	0 3 0	0 6 0	0 7 0	0 8 0	0 12 0	0 15 0	1 10 0	0 3 0	0 3 0
7	0 3 6	0 7 0	0 8 0	0 9 0	0 14 0	0 17 6	1 15 0	0 3 10 0	0 3 10 0
8	0 4 0	0 8 0	0 10 0	0 12 0	0 16 0	0 20 0	2 0 0	0 4 0	0 4 0
9	0 4 6	0 9 0	0 11 3	0 13 6	0 18 0	0 22 6	2 5 0	0 4 10 0	0 4 10 0
10	0 5 0	0 10 0	0 12 6	0 15 0	0 20 0	0 25 0	2 10 0	0 5 0	0 5 0
11	0 5 6	0 11 0	0 13 9	0 16 6	0 22 0	0 27 6	2 15 0	0 5 10 0	0 5 10 0
12	0 6 0	0 12 0	0 15 0	0 18 0	0 24 0	0 30 0	3 0 0	0 6 0	0 6 0
13	0 6 6	0 13 0	0 16 3	0 19 6	0 26 0	0 32 6	3 5 0	0 6 10 0	0 6 10 0
14	0 7 0	0 14 0	0 17 6	1 1 0	0 28 0	0 35 0	4 0 0	0 7 0	0 7 0
15	0 7 6	0 15 0	0 18 9	1 2 6	0 30 0	0 37 6	4 5 0	0 7 10 0	0 7 10 0
16	0 8 0	0 16 0	1 0 0	1 3 0	0 32 0	0 40 0	5 0 0	0 8 0	0 8 0
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100	0 50 0	7 0 0	9 5 0	13 0 0	0 51 0	16 0 0	47 0 0	0 50 0	0 50 0

## HACKNEY COACH AND CAB FARES.

PAGE FROM	Birmingham, Euston sq.	Brighton, Tooley-st.	E. Count. Shoreditch	Gt. West. Paddingt.	Southamp. Nine Elms
	Ch.	Con.	Cab.	Con.	Cab.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.	£. s. d.
Adelphi Terrace ..	1 4 2	0 1 8	2 2	0 3 0	2 4 3
Aldersgate-street ..	1 8 2	0 1 0	6 1	0 1 6	0 4 6
Alldgate ..	2 0 3	0 0 8	1 4	0 1 6	0 3 4
Angel, Islington ..	1 0 1	0 1 8	6 1	0 2 0	0 4 0
Baker-street ..	1 0 1	0 2 8	4 0	0 1 6	0 1 6
Bayswater, Porchester Terrace	2 0 3	0 3 4	5 0	0 4 5	0 0 8
Bedford-row ..	1 0 1	0 1 8	6 1	0 2 6	0 4 3
Bedford-square ..	0 8 1	0 2 0	3 0	0 2 0	0 3 0
Belle Sauvage ..	1 8 2	0 1 0	6 1	0 4 2	0 2 4
Birmingham Railway Station	2 4 3	0 2 4	6 2	0 4 3	0 1 8
Bishopsgate-street ..	2 4 3	0 6 0	8 1	0 0 8	0 3 4



## NEW ACTS OF PARLIAMENT AND PARLIAMENTARY RETURNS.

## ABSTRACT OF THE WILLS ACT.

1 Victoria, c. 26.

*Operation of the Act.*—The Act does not extend to Scotland; neither does it affect the wills of soldiers or sailors on actual service, nor wills made before the commencement of 1838. But all wills, with the exception of those of soldiers or sailors, made after the commencement of 1838, come under the provisions of the Act.

*What kind of Property may be bequeathed by Will.*—It is lawful for every person to devise, bequeath, or dispose of, by his will executed in the manner directed by the act, all real estate, and all personal estate which he shall be entitled to either at law or in equity, at the time of his death.

All property may thus be bequeathed by will. "Real Estate" extends to manors, advowsons, messuages, lands, tithes, rents, and hereditaments, whether freehold, customary freehold, tenanright, customary or copyhold, or of any other tenure, and whether corporeal, incorporeal, or personal, and to all future and contingent interests therein. "Personal estate" extends to leasehold estates, and other chattels real, and also to moneys, shares of government and other funds, securities for money (not being real estate) debts, rights, credits, goods, &c.

*How a Will should be made.*—A will can only be made in writing: and it must be signed at the foot and end by the testator himself; or, if he is unable to do it, by some person for him, in his presence, and by his direction; and his testator must either make or acknowledge his signature in the presence of two or more persons, who are to be present at the same time, and who are to sign their names as attesting witnesses in the presence of the testator. No particular form of attestation is necessary.

The above mode must be observed by all persons, male, or female, in making their wills. If any person is drawing up his will, or having it drawn up for him, without legal assistance, the best mode of expression will be the simplest and plainest that can be used. Care must be taken not to bequeath legacies to attesting witnesses, or even to the wife or husband of an attesting witness, as all legacies so bequeathed are void in law. The object of this enactment seems to be to prevent any will from being disputed or nullified on account of any alleged undue interest on the part of an attesting witness. If, therefore, a testator wishes to give any thing to an attesting witness, he must do it some other way than by a legacy. But creditors and executors can be attesting witnesses.

*Who cannot make a Valid Will.*—Persons under twenty-one years of age cannot make a valid will. Neither can married women in the lifetime of their husbands, except where they have property settled on them with a power of devising, &c.

*What of itself Revokes a Will.*—Any man or woman, having made a will, and marrying afterwards, the act of marriage revokes the will, "unless made in exercise of a power of appointment, when the estate thereby appointed would not in default pass to his or her heir, customary heir, executor, or administrator, or the person entitled as his or her next of kin, under the statute of distributions."

*How a Will may be Revoked or Altered.*—A will can only be revoked by being destroyed, or by the execution of a new will. Alterations must be made in the same way as a will.

Persons making any alterations in their wills must therefore be careful that the alterations are witnessed and signed in the same way as the wills.

*How a Will is to be hereafter Construed.*—Wills are to be construed as if made immediately before the death of the testator, unless a contrary intention appears from the terms of a will itself.

A residuary devise shall include the estates bequeathed by lapsed and void devises, unless a contrary intention shall appear.

A general devise of the testator's land shall include copyhold and leasehold, as well as freehold lands, unless a contrary intention shall appear.

A general gift shall include estates over which the testator has a general power of appointment, unless a contrary intention shall appear.

A devise without any words of limitation shall be construed to pass the fee, unless a contrary intention shall appear.

The words "die without issue," or "die without leaving issue," shall be construed to mean die without issue living at the death of the person, and not an indefinite failure of his issue, unless a contrary intention shall appear by the will, by reason of such person having a prior estate tail, or of a preceding gift, being, without any implication arising from such words, a limitation of an estate tail to such person or issue, or otherwise; but this Act shall not extend to cases where such words import if no issue described in a preceding gift shall be born, or if there shall be no issue who shall live to attain the age or otherwise answer the description required for obtaining a vested estate by a preceding gift to such issue.

The preceding abstract gives the main points of this important Act, which tends to simplify the law of wills, and prevent the litigation so often arising from the disposal of property by bequest.

## NEW ACT FOR THE GRANTING OF LEASES.

"An act to facilitate the Granting of certain Leases," 8 and 9 Victoria, c. 124, contains eight short provisions, with two schedules. The object of this new law seems to be to shorten leases for lands and tenements. A very short form, indeed, may be used, and it is provided, that in future leases, unless specially excepted, shall be deemed to include all outhouses, buildings, &c., belonging or otherwise appertaining. The remuneration for preparing and executing so short a deed is not to be paid by the length (shortness), but the taxing-master is to consider the skill and labour employed, and responsibility incurred in the preparation thereof. Any deed which shall fail to take effect under this act shall bind the parties as if the act had not been made. The act is not to extend to Scotland. The forms to be used are very concise, and a lease prepared and executed according thereto may be carried about without the slightest inconvenience.

## GAMES AND WAGERS.

The Act 8 and 9 Victoria, c. 109, "to amend the Laws concerning Games and Wagers," contains several provisions respecting Gaming-houses. In order to remove the difficulties which have arisen on prosecutions, to prove that the house alleged was a common gaming-house, it is now provided, that in the absence of other evidence it shall be sufficient to show that the place is kept open or used for playing therein at any unlawful game, and that a bank is kept there by one or more of the players exclusively of the others, or that the chances of any game played therein are not alike favourable to all the players, including among the players the banker, or other person by whom the game is managed, or against whom the other players stake, play, or bet, and every such house or place shall be deemed a common gaming-house. In places out of the jurisdiction of the metropolitan police, magistrates may issue warrants to officers to enter houses. Persons keeping gaming-houses, and every person having the care or management of the same, as also bankers, croupiers, &c., may now be summarily convicted, and fined  $\leq 100$  or sent to prison for six months, and on non-payment of penalties, a warrant of distress levied on their goods. It shall not be necessary in future to prove that the persons found playing were playing for any money, wager,

or stake. The Commissioners of Police may authorise a superintendent and constable to enter gaming-houses, and to seize all instruments of gaming, and to take into custody all persons found therein. Search may be made for instruments of gaming. In proceedings to be instituted after the passing of this act, it shall be sufficient evidence to show that there were cards, dice, balls, counters, tables, or other instruments in the room entered, or on the person seized, although no play was actually going on at the time, and all such things shall be destroyed. Witnesses examined on gambling transactions are to receive from the magistrates before whom they are called certificates of indemnification. There are also several provisions respecting the regulations to be enforced as to the keeping of billiard and bagatelle tables. Persons keeping inns, ale-houses, and victualling houses are to apply to the justices at licensing sessions to grant licenses at their discretion to keep billiard and bagatelle boards, or instruments used in any game of the like kind. The licenses are to be annual, for which a sum of 6s. on each is to be charged. With regard to places other than those mentioned, and which abound in the metropolis, licenses in Middlesex and Surrey are to be taken out after the 5th of April last, and elsewhere after the 10th of October next, and during the continuance of such licenses the words "Licensed for billiards" shall be conspicuously exhibited. Persons keeping such places without licenses, are to be considered as keepers of common gaming houses, and proceeded against accordingly; and on conviction, in a summary manner, to pay or be committed to prison. Billiards are not to be played "after one o'clock, and before eight of the clock in the morning of any day," nor on Sundays, or other days appointed to be kept as a public fast or thanksgiving. All constables and officers are empowered to enter places where billiards or bagatelle are played as often as they think proper, and on refusal to be admitted the keepers to be deemed guilty of an offence against their licenses. It is also provided by this Act, that every person who shall by any fraud or unlawful device or ill practice in playing at or with cards, dice, tables, or other games, or in bearing a part in the stakes, wagers, or adventures, or in betting on the sides or hands of them that do play, or in wagering on the event of any game, or sport, pastime or exercise, win from any other person to himself or any other or others, any sum of money or valuable thing, shall be deemed guilty of obtaining such money or valuable thing from such other person by a false pretence, with intent to cheat or defraud such person of the same; and, being convicted thereof, shall be punished accordingly. Wagers are not to be recoverable by law, but the enactment is not to apply to any subscription, or contribution, or agreement to be awarded to the winner or winners of any lawful game, sport, pastime, or exercise. In future, proceedings under feigned issues are to be abolished, and matters tried under a writ of summons. Proceedings under this act are not to be commenced without a month's notice, and are to be brought within three months of the alleged offence.

## SMALL DEBTS ACT.

The act 8 and 9, Victoria, c. 127, for the better Securing the Payment of Small Debts," gives power to the Courts of Bankruptcy, and a number of inferior courts, on the application of a creditor by a brief note in writing, to issue a summons against any debtor, on balance of account or otherwise, for a sum not exceeding £20; appointing a day in which he is to appear in court. It is not necessary for either party to employ counsel, attorney, or solicitor. The Judge may examine witnesses and documents, and he may also interrogate the parties, and thereupon pronounce a summary judgment. The act empowers him to decide without the intervention of a jury. Where undefined damages are sought, there may be an indirect advantage in saving the Judge from reflections that partisans are sure to make; but in questions of settled accounts, and of bills—in short, in all questions dependent on mere legal skill—the jury is better dispensed with. The Judge may order payment at once, or by instalments; may order execution on the debtor's goods and chattels, tradesmen's tools and other necessities being excepted; and in the case of a fraudulent or fraudulent debtor, imprisonment for a term not exceeding forty days.—Provision is made in the act for extending its benefits to the whole of England. One of the clauses empowers the Queen in Council to enlarge the jurisdiction of all inferior courts for the recovery of debts, to demands whether on account or otherwise, or to damage arising out of any express or implied agreement, not exceeding £20. Such an Order in Council is not to take immediate effect in the case of any court not having a Judge qualified as above described; but it is enacted that the persons entitled to appoint a Judge in such court shall, within three months after the issuing of the order nominate a qualified Judge, or that if they fail to do so, the Queen shall appoint one. The same section of the act empowers the Queen in Council to extend the district of any such court; and where any part of the extended district is within the jurisdiction of another court, to contract its district. The act 8 and 9 Victoria, c. 127, therefore enables the Executive Government to give every part of the country the benefit of local courts, with efficient judges and cheap and expeditious forms of process, for enforcing payment of all debts not exceeding £20. The boon is an important one; as is testified by the eagerness of tradesmen in those Metropolitan districts which are not within the jurisdiction of any court specified in the act, to have them annexed to the district of the nearest court.

## THE FINANCES OF GREAT BRITAIN.

From an important Parliamentary paper recently published, containing an account of the Public Income and Expenditure of the United Kingdom for the years, 1843, 1844, and 1845, the following facts have been collected.

It appears that the national income has been increasing every year, whilst the concurrent expenditure has remained comparatively stationary. In 1842, the income amounted to £51,120,040, and the expenditure to £55,195,159, showing a deficiency of £4,075,119; in 1843 the income amounted to £56,933,022, and the expenditure to £55,501,740, showing a surplus of £1,431,282; and in 1844, the income of the country amounted to £58,590,217, and the expenditure to £55,103,647, leaving a surplus of £3,486,570, which, together with the former surplus of £1,431,282, formed an aggregate surplus of £5,919,852, which more than covered the large deficiency of £4,075,119 noticed in 1842.

The sources whence our enormous revenue is derived chiefly consist of the following items. We select the component parts of the income received in 1844-45 (£58,590,217). Customs and Excise figure for £38,576,684, the relative proportions of each being £23,000,000, and £15,000,000 in round numbers; Stamps for £7,327,803; Assessed and Land Taxes for £4,429,870; the Property and Income Tax for £5,329,601; the Post-office for £1,705,063; Crown-lands for £41,583; ordinary revenues for £394,593; and Chinese ransom money (an extraordinary and special item), for £385,008.

The expenditure is also divided into a variety of items. In 1844, the cost or collecting the Customs' revenue amounted to a sum of £1,406,496, and with the preventive service charges, amounted to £1,967,584. The expenses of collecting the Stamps and Assessed Taxes amounted to £2,860,536. Thus the mere expense of collecting the revenue amounted to nearly five millions sterling, or about 1-12th.

The civil Government costs the country £1,618,265. This includes a sum of



£371,800, from which the Queen's privy purse is supplied, and the salaries and expenses of the Royal household are defrayed; a sum of £277,000 for allowances to the Royal Family; £26,440 for the Irish viceroyalty; £100,646 for the salaries and expenses of both houses of Parliament, including the printing of the vast mass of papers and documents which now lie accumulated on our tables, the growth of only one session; £538,593 for "civil departments," including superannuation allowances; £277,501 for other annuities; and £6,285 for pensions charged on the civil list. It may be proper to state, for the information of those ignorant of the fact, and especially foreigners, that the Civil List formerly included all the heads of public expenditure, except those of the army, navy, and other military departments, but is confined at present (9th William IV., cap. 25) to "the expenses proper for the maintenance of His Majesty's household." The Queen's privy purse does not exceed, we believe, an annual sum of about £60,000 or £70,000 out of the whole £371,800. Under the expenses of justice is included a sum of £559,782 for courts of justice, £594,312 for police and criminal prosecutions, and £703,111 for houses of correction, &c. The diplomatic expenses amount to £380,609 annually, including £181,186 for the salaries and pensions of foreign Ministers, Plenipotentiaries, and Ambassadors; £129,303 for Consuls' salaries, and superannuation allowances; and £70,120 for expenses of outfits, &c. The above sums are charged on the "Consolidated Fund." Of those raised by annual votes of supply, there are £6,171,714 for the maintenance of the Army, £5,558,219 for that of the Navy, and £1,294,312 for the expenses of the Ordnance.

### REVENUE AND TAXATION.

A VOLUMINOUS account, showing the gross receipt of Revenue derived from duties of Customs, Excise, and Stamps, and from assessed taxes; the amount of all taxes repealed, expired, or reduced, and of new taxes imposed; and the increase or decrease of revenue, with the average price of wheat, &c., has been laid before the House of Commons, and affords a complete synopsis of the subject.

It appears that the gross receipt of revenue on the following articles, in the year 1844, amounted to—Customs duties, to £24,107,348; Excise, to £14,469,336; Stamps, to £7,327,892; and Assessed Taxes, to £3,266,350; total, £49,170,836. The amount of taxes repealed or reduced in the same year was £458,810, no new ones having been imposed. The increase of the actual produce as compared with the preceding year, was £2,297,265; and the average price of wheat, 51s. 4d. In 1842, the amount of the revenue on the same items of taxation amounted to £46,539,892; the amount of taxation repealed or reduced to £1,596,366, and the new taxes imposed to £529,982. The property-tax is not included in this abstract, the order of the house limiting that branch of revenue to the assessed taxes.

The gross total amount of the taxes repealed, expired, or reduced since January, 1815, amounts to the sum of £34,870,795, and the net amount to £32,132,030. Under the head of Customs, the net amount reduced was £10,962,662; under that of Excise, £14,378,400; Stamps, £1,224,038; and Assessed Taxes, £5,557,930. The gross total amount of taxes imposed during the same period amounted to £8,670,967, and the net amount thereof to £8,587,853; viz., £3,894,041 under the head of Customs; £4,169,300 under that of Excise; £209,501 under that of Stamps; and £315,011 under that of Assessed Taxes. It further appears that the grand total estimated gross produce of the Customs' duties repealed between 1815 and 1841 amounted to £9,190,926, and the grand total estimated net produce to £9,005,766; the grand total estimated gross produce of the Customs' duties imposed or augmented during the same period having amounted to £3,746,864, and the net produce to £3,733,219. The estimated loss by the repeal or reduction of Customs' duties amounted, on the net revenue, in 1842, to £1,498,944; in 1843, to £1,717,521; and in 1844, to £286,431. The concurrent estimated gain, by the imposition or augmentation of duties, amounted in the net revenue to £160,822 (in the year 1842 alone). The gross total amount of stamp duties repealed, expired, or reduced, between 1822 and 1844, amounted to £1,189,997, and the net amount to £1,034,476, whilst the total amount of stamp duties imposed between 1828 and 1844 amounted to £25,321.

The gross produce of the property-tax (repealed in 1816) was £14,617,823, and the net amount £14,318,573. The gross total amount of the assessed taxes repealed or reduced, between 1816 and 1840, was £5,148,574, and the net amount, £4,943,196. The gross total amount of the property-tax, land-tax on personal estates, and assessed taxes, thus repealed, was £19,771,611, and the net total amount £19,266,983.

The total estimated amount of the taxes repealed or reduced in Ireland from 1816 to 1841 amounted to £614,734, including the repeal of the house-tax, reductions in outside jaunting cars, and the rates in respect of windows, carriages, servants, horses, and dogs, and the repeal of the hearth money, window light (£200,000), carriage, servant, dog, horse, and coachmaster duties, &c.

The net amount of the additional duty of 10 per cent. on assessed taxes (imposed by Mr. Baring) was, in 1840 (the first year of its imposition) £311,477.

### TRADE AND NAVIGATION.

A PARLIAMENTARY paper has been issued, containing returns relative to Trade and Navigation for the five months, ending June 5, 1845. The whole range of trade is embraced, but we have room for a few articles only. Butter, for instance; in 1843, the quantity imported was 54,604 cwt.; in 1844, the quantity was 69,053 cwt.; in 1845, 93,433 cwt. Cheese has increased in the same proportion. The quantity of wheat imported in 1845 was 71,089 quarters—a very small amount compared with the imports of the preceding two years. Flax also fell off materially. In fruits, the imports increased more than twofold. Silk, skins, spices, rum, and brandy also increased. Sugar imported in 1843 was 1,639,792 cwt.; in 1844, 1,286,470 cwt.; in 1845, 1,926,036 cwt.; and all for home consumption. Tobacco has doubled in the last two years. Wine has also doubled in quantity since 1843, the quantity in 1845 being 2,720,344 gallons. Cotton wool from the British possessions is also on the increase, but foreign has fallen off. Sheep's and lamb's wool has increased from 11,234,621 lb. in 1843, to 18,421,323 lb. in 1845. The exports of coffee from the British possessions in 1843 were 31,246 lb. only; in 1844, 38,802 lb.; in 1845, 263,421 lb. The declared value of exports, coal, cotton manufactures, yarn, cutlery, earthenware, hardware, linens, linen yarn, metals, salt, silk manufactures, refined sugar, sheep's wool, woollen yarn, woollen manufactures, in 1843, was £17,027,190; in 1844, £19,490,719; in 1845, £20,482,579. With regard to shipping, the tonnage entered inwards in the five months ending the 5th of June, 1845, was 1,244,186; in 1844, 1,180,286; in 1845, 1,532,748. Cleared outwards, in the same periods respectively, 1,521,936; 1,412,694; 1,593,008. In the coasting trade the tonnage entered inwards in the same periods was, including the trade with Ireland, 4,174,439; 4,326,334; 5,225,932. Cleared outwards, 4,360,984; 4,507,848; 5,393,419. The number of ships has increased in the ratio of the augmentation of the tonnage.

### THE SLAVE TRADE.

A RETURN of the expenses of liberated Africans, and of the liberated African department in each year, from December, 1838, to December, 1844, including buildings and all contingent expenses, so far as the same can be made out from the records of the Audit Office, comprising maintenance, clothing, medical treat-

ment, fuel, light, salaries, and incidental expenses generally, has been appended to some returns and documents relative to the Slave Trade, and the treaties between Great Britain and Spain on that subject, lately obtained by Mr. Hunt, M.P. In 1839 the gross total amount of the above expenses was £21,967; in 1840, £16,287; in 1841, 46,025; in 1842, £33,800; in 1843, 18,802; and in 1844, £13,499; making a grand total of £150,354, for those six years. The total annual cost to the country of all the vessels employed in the suppression of the slave trade, including the wear and tear, amounted in 1839 to £80,393; in 1840, to £101,175; in 1841, to £73,954; in 1842, to £94,026; in 1843, to 88,239; and in 1844, to £217,527; of which £86,091 was consumed in wages, £47,263 in victuals, and £84,173 in wear and tear. The number of men and officers who died in 1844, engaged in the slave service on the coast of Africa, amounted to 66; and the number invalided to 83. In 1847 there appears, from this return, that between December, 1838, and December, 1844, there were 346 vessels seized and proceeded against either in the English or foreign mixed commission courts, or in the British Vice-Admiralty courts, on the ground of being concerned in the illicit traffic, and that 66 of them were seized with slaves on board, and 280 under the equipment article, or without slaves. That the net proceeds of the vessels, &c., proceeded against in the mixed courts amount to the sum of £67,412, of which one moiety (£33,706) has been paid over to the foreign Government, and the other moiety (£33,629) to the British captors. That the net proceeds of the vessels proceeded against in British Vice-Admiralty Courts amount to the sum of £33,807, the whole of which proceeds were, by the act 5 and 5 Victoria, cap. 91, granted to the captors. That the net proceeds of the vessels, &c., condemned for a breach of the act 5 George IV., cap. 113, amount to the sum of £6,518, which was distributed thus:—£1,911 to captors for seizures at sea; £898 to captors where the vessels were not seized at sea; £898 to the governor of the colony where the seizure was made; and £2,810 to the Crown, being the proportion thereto appertaining. That the sums paid for bounties to the captors on the slaves seized amounted to £88,135; the tonnage bounties to the captors for the same period to £114,668; and the compensation paid by her Majesty's Government for illegal captures, during the same period to £1,405. The expenses of the mixed commission courts amounted in the year 1839 to the sum of £15,088; in the year 1840, to £15,581; in 1841, to £14,803; in 1842, to £13,880; in 1843, to £21,787; and in 1844, to £21,757. Various treaties in the French, Portuguese, and Spanish languages, with translations annexed, are given in the return.

### MERCHANT SEAMEN.

THE Lords Commissioners of her Majesty's Treasury having had under their consideration a representation of the Commissioners of the Customs, relative to the evasion of the clause in the Merchant Seamen's Act, requiring merchant vessels to take on board and have in store certain quantities and descriptions of medicines, and their Lordships having communicated to the Lords Commissioners of the Admiralty on the subject, have approved of the suggestion of the Board, that vessels required to carry medicines by the act 7 and 8 Victoria, chap. 112, are to be occasionally boarded or visited by the revenue officers for the purpose of ascertaining the quantities of medicines, &c., shipped for the use of the crew; and directions have been issued to the principal officers of the revenue at the several ports of the United Kingdom, and other places traded to by British vessels, to take care that their Lordships' orders are duly carried into effect from the present time. The 18th section of the act alluded to directs that every ship navigating between the United Kingdom, and any place out of the same, shall have and keep constantly on board a sufficient supply of medicines and medicaments suitable to accidents and diseases arising on sea voyages, in accordance with the scale which shall, from time to time, or at any time, be issued by the Admiralty; and every ship (except those bound to European ports, or to ports in the Mediterranean Sea) is also to have on board a sufficient quantity of lime or lemon-juice and sugar daily, after the rate of half an ounce each per day, and the vinegar weekly, at the rate of half-a-pint per week to each person, so long as the consumption of salt provisions is continued; and in case of default in keeping the articles mentioned in store, the owner of the vessel incurs a penalty in each instance of £20; and in default of serving them out as stated, a penalty in each instance of £5; and in case the master or any seaman receives any hurt or injury in the service of the ship, the expense of providing the necessary surgical and medical advice, with attendance and medicines, and for his subsistence until cured or brought back to some port of the United Kingdom, is, together with the costs of his conveyance home, to be defrayed by the owner of the ship, without any deduction whatever on that account from the wages of the master or seaman.

### PAY OF ARMY OFFICERS.

By a revised warrant of her Majesty, issued in the summer of 1845, regulating the issues of staff and garrison pay, the following are the prescribed rates of Daily Pay allowed for Staff-officers at home and abroad, who hold other military commissions or appointments:—General commanding in chief, if a field-marshal, £168 s. 9d.; if below that rank, £9 9s. 6d.; general, £5 13s. 9d.; lieutenant-general, £3 15s. 10d.; major-general, £1 17s. 11d.; brigadier-general, £1 8s. 6d.; colonel, £1 2s. 9d.; adjutant-general, if serving at head-quarters, besides allowance of £500 a-year, £3 15s. 10d., if serving elsewhere, £1 17s. 11d.; deputy adjutant-general, if serving at head-quarters, £1 17s. 11d., if serving elsewhere, 19s.; assistant adjutant-general, if at head-quarters, half-pay regimental rank, 19s.; head-quarters, full-pay, ditto, 14s. 3d., if serving elsewhere, 14s. 3d.; deputy assistant, ditto, head-quarters, 14s. 3d., if serving elsewhere, 9s. 6d.; quarter-master-general, head-quarters, besides allowance of £500 a-year, £3 15s. 10d., if serving elsewhere, £1 17s. 11d.; deputy quarter-master-general, head-quarters, £1 17s. 11d., elsewhere, 19s.; assistant quarter-master-general, sums varying from £1 7s. 6d. down to 14s. 3d.; deputy, ditto, 14s. 3d. down to 9s. 6d.; military secretary abroad, 19s.; assistant ditto, 9s. 6d.; aide-de-camp to Sovereign, 10s. 5d.; to general officer, 9s. 6d.; major of brigade, 9s. 6d. Daily rates of pay for staff or garrison officers holding only one military commission or appointment:—Inspector-general of hospitals, under 20 years' service, full pay £1 16s.; under 25, £1 18s.; above 25, £2. Deputy inspector-general, full pay £1 4s.; staff surgeon, second class, under 10 years' service, 13s.; under 20, 15s.; under 25, 19s.; above 25, £1 2s. Assistant-surgeon, under 10 years' service, 7s. 6d.; above 10, 10s. Medical clerk, under 15 years' service, 6s.; abroad, 7s.; under 20, 7s.; abroad, 8s.; under 25, 8s.; abroad, 9s.; above 20 years, of which 15 have been abroad, 9s.; above 25, of which less than 15 abroad, 9s. In addition to pay of ranks, officers at head of medical department on foreign stations to receive allowances as under when serving under the following circumstances:—if with army in the field of 10,000 men or upwards, 20s. per day; if with 5,000, 15s. per day; if less number, 10s. per day; and if in colony whose forces consist of 1,500 men, 5s. per day. Chaplain to forces, under 15 years' service, full pay, 16s.; under 20 years' service, £1; above 20, £1 2s. 6d. Deputy judge-advocate, 19s.; provost-marshal, 9s. 6d.; deputy provost-marshal, 4s. 9d.



## USEFUL DOMESTIC HINTS AND RECEIPTS.

## THE POTATO DISEASE.

Mr. Herapath has widely circulated the following valuable information:—My attention has been given to the disease which has shown itself so extensively amongst the growing potatoes. I find, in almost every instance, that the epidermis of the stalk below the surface of the ground, is more or less in a state of decay, often disintegrated, and completely rotten; the leaves and branches accord with the state of that part of the stalk below the ground. The tubers, beneath the outer skin, is first spotted brown (like a bruised apple); these spots extend and penetrate towards the centre, quite changing the nature of the potato. Those near the surface are most injured; in some cases the lowest on the root are not at all affected, while the upper ones are useless. I should therefore expect that the longer the crop remains in the land, the greater the injury will be. It seems from the microscopic appearances, that the starch escapes injury for a long time after the skin and cellular parts are gone; and as the whole of the nutritive powers of the potato reside in the starch, I should recommend that wherever the disease has shown itself to any extent the crop should be dug whether ripe or not, and the starch extracted by the following simple process:—After washing the roots, let them be rasped fine and thrown into a large tub or other vessel; pour a considerable quantity of water, and well agitate and rub the pulp with the hands; all the starch or fecula will, from its great weight, fall to the bottom, while the skin and fibrous matter will be carried away by the water; wash the starch with one or two more waters, allowing it to fall after each washing; spread it upon cloths in a warm room to dry; in this way about twenty or twenty-one pounds will be obtained from every hundred pounds of potatoes, and it contains as much nourishment as the original roots; it will keep any length of time, and might be used with flour to make bread, pies, puddings, &c., as well as farinaceous spoon-meat. This is much better than throwing away the diseased roots, and will furnish food for tens of thousands who might otherwise want it.

## CURING BACON.

The following is the method of curing bacon in Yorkshire:—After being killed it is allowed to hang twenty-four hours previous to being cut up; then rub one pound of saltpetre on a twenty stone pig (of fourteen pounds to the stone), and one and a half or two stones of common salt, taking care that it is well rubbed in; it is then laid in a tub kept for the purpose. After having laid a fortnight, it is turned over, and a little more salt applied, say half a stone; it then remains a fortnight longer in the pickle-tub; it is then taken and bung up in the kitchen, where it remains two months to dry, but should the winter be far advanced, and dry weather set in, a shorter period might suffice; after being taken from the top of the kitchen, the inside is washed over with quicklime and water to preserve it from the fly; it is then removed into a room not used by the family, away from heat, and where it will be kept perfectly dry, and is ready for use at pleasure. The smoking system is not generally adopted in York. The above plan never fails, if done with care; the saltpetre and salt should be of the best quality, for upon those articles depend the success in producing a good article for the table. The whitewash not only preserves it from the fly, but also prevents it from being rancid, as it would otherwise be.

## GEES.

The common Goose begins to lay towards Candlemas, and after laying from nine to eleven eggs, she sets thirty days, and then brings out her little flock. If, however, she shows a wish to set when she has only laid two or three eggs, she must be driven from the nest, or shut up for a day or two. She will then take to lay again. One gander and five geese are the regular stock to begin with; they will produce fifty goslings in a season. Geese are grazing birds; they love a common, but horses do not like their company in a field, as they object to feed after them. The herb called goose-grass they are immoderately fond of, and it is plentiful always under hedges during the gosling season. Water is important to geese, but they succeed in situations where there is no pond; a large shallow pan filled with water, sufficiently capacious to admit of their washing in it, has often answered the purpose; but a pool is most desirable. The goose-hovel should be low, well-thatched, and not facing into the farm-yard, otherwise pigs will get through the goose aperture. It should have a door also, for the owner to enter. The nests should be composed of straw, lined with hay, and the birds should be fed near their home to allure them to it. If some of the goslings are hatched before the others, they should be removed from the mother, kept warm in flannel before the fire, and returned to her when the whole brood are hatched. Thin barley meal and water is excellent food for goslings, with chopped goose-grass; they soon learn to eat oats and feed themselves. Now down hemlock, if any grows near the poultry yard; it is pernicious in its effects upon poultry. Fatten geese in small parties, as they love society. They should be cooped a month, fed plentifully with sweet oats and clean pure water in a narrow wooden trough. An experiment has lately been tried of feeding geese with turnips, cut up very fine, and put into a trough with water. The effect was, that six geese, weighing only nine pounds each when shut up, actually weighed twenty pounds each, after about three weeks' feeding with this food alone.—*Farmer's Encyclopedia*.

## TO FATTEN POULTRY.

The following will be found a quick and excellent food for fattening chickens. Set rice over the fire, with skimmed milk; let it boil till the rice is quite swelled out, then add a teaspoonful of sugar. Feed them three times a day in common pans, giving them only as much as will quite fill them at once. Let the pans be well washed, and set in clean spring water, so that no sourness may be conveyed to the fowls, as that prevents them from fattening. Give them clean water or the milk of rice to drink. By this method, the flesh will have a clear whiteness, which no other food gives; and when it is considered how far a pound of rice will go, and how much time is saved by this mode, it will be found to be cheap. It is said that a portion of animal mixed with vegetable food, causes poultry to thrive rapidly, but they should be confined to a vegetable diet some time before they are killed. A quantity of charcoal, broken in small pieces, and placed within reach of the poultry, increases their appetite, and promotes digestion.

## TO KEEP RABBITS FROM BARKING TREES.

In order to keep fruit trees safe from these depredators take one spoonful of hot slacked lime, one ditto of clean cow's dung, half ditto soot, one handful of flour of sulphur, and mix all together with soft water or cow's urine, until they acquire the consistency of thick paint; then paint the trees sufficiently high to be out of the reach of these vermin. The trees should be gone over in the beginning of winter, or on the first appearance of frost, choosing a dry day, if possible, for the operation. The sulphur and soot, I presume, are the principal ingredients. The cow dung is added merely to make the others stick to the trees. I have not tried sulphur matches, as I have protected numbers of labourers, near the sides of walks, for sixteen years, with the greatest success, where there are multitudes of hares, and rabbits also frequently make their appearance. Except when the mixture has been washed off by heavy rains before being properly dry, one application has served for a whole year.—*Gardener's Chron.*

## TO DRESS WHITEBAIT.

(Greenwich Receipt.) In season in July, August, and September.

This delicate little fish requires great care to dress it well. Do not touch it with the hands, but throw it from your dish or basket into a cloth, with four or five handfuls of flour, and shake it well; then put it into a bait sieve, to separate it from the superfluous flour. Have ready a very deep frying-pan, nearly full of boiling fat, throw in the fish, which will be done in an instant; they must not be allowed to take any colour, for if browned they are spoiled. Lift them out, and dish them upon a silver or earthenware drainer, without a napkin, piling them very high in the centre. Send them to table with a cut lemon, and slices of brown bread and butter on a plate.—*From Modern Cookery, by Eliza Acton; an excellent work.*

## HER MAJESTY'S PUDDING.

Infuse in a pint of new milk half a pod of vanilla, cut into short lengths, and bruised; simmer them gently together for twenty minutes, and strain the milk through muslin to half a pint of cream; put these again on the fire in a clean saucepan, with three ounces of fine sugar, and pour them, when they boil, to the beaten yolks of eight very fresh eggs. Stir the mixture often until it is nearly or quite cold, and boil it as gently as possible for an hour in a well-buttered mould or basin that will just hold it. Let it stand for four minutes at least before it is turned out; dish it carefully, strew, and garnish it thickly with branches of preserved barberries, or send it to table with a rich syrup of fresh fruit, or with clear fruit-jelly, melted. We have had often a complete of currants, cherries, or plums served, and greatly relished with this pudding, which we can recommend to our readers as an extremely delicate one. The flavouring may be varied with bitter almonds, lemon-rind, yucca, or aught else which may be better liked than the vanilla. New milk, one pint; vanilla, half pod; twenty minutes. Cream, half-pint; sugar three ounces; yolks of eggs, eight; one hour. The cook must be reminded that unless the eggs be stirred briskly as the boiling milk is gradually poured to them, they will be likely to curdle. A buttered paper should always be put over the basin before the cloth is tied on, for all custard puddings.—*Ibid.*

## PRINCE ALBERT'S PUDDING.

Beat to a cream half a pound of fresh butter, and mix with it by degrees an equal weight of pounded loaf-sugar, dried and sifted; add to these, after they have been well beaten together, first the yolks, and then the whites of five fresh eggs, which have been thoroughly whisked apart; now strew lightly in, half a pound of the finest flour, dried and sifted, and last of all, half a pound of jar raisins, weighed after they are stoned. Put these ingredients, perfectly mixed, into a well-buttered mould, or floured cloth, and boil the pudding for three hours. Serve it with punch sauce. We recommend a little pounded mace, or the grated rind of a small lemon, to vary the flavour of this excellent pudding; and that when a mould is used, slices of candied peel should be laid rather thickly over it after it is buttered. Fresh butter, pounded sugar, flour, stoned raisins, each half a pound; eggs, five: three hours.—*Ibid.*

## TO MULL WINE.

(An excellent French Receipt.)

Boil in a wineglassful and a half of water a quarter of an ounce of spice (cinnamon, ginger slightly bruised, and cloves), with three ounces of fine sugar, until they form a thick syrup, which must not on any account be allowed to burn. Pour in a pint of port wine, and stir it gently until it is on the point of boiling only; it should then be served immediately. The addition of a strip or two of orange-rind cut extremely thin, gives to this beverage the flavour of bishop. In France light claret takes the place of port wine in making it, and the better kinds of *vin du pays* are very palatable thus prepared. Water, one and a half wineglassful; spice, quarter of an ounce, of which fine cloves, twenty-four, and of remainder, rather more ginger than cinnamon; sugar three ounces: fifteen to twenty minutes. Port wine or claret, one pint; orange-rind, if used, to be boiled with the spice. Sherry, or very fine raisin or ginger wine, prepared as above, and stirred hot to the yolks of four fresh eggs, will be found excellent.

## MINT JULEP.

(An American Receipt.)

Strip the tender leaves of mint into a tumbler, and add to them as much wine, brandy, or any other spirit, as you wish to take. Put some pounded ice into a second tumbler; pour this on the mint and brandy, and continue to pour the mixture from one tumbler to the other until the whole is sufficiently impregnated with the flavour of the mint, which is extracted by the particles of the ice coming into brisk contact when changed from one vessel to the other. Now place the glass in a larger one, containing pounded ice: on taking it out of which it will be covered with frost-work.

## "GREAT FACTS" FOR "LITTLE FOLKS."

The "United Association of Journeymen Confectioners," whose confederation includes Edinburgh, Glasgow, Aberdeen, Arbroath, Leith, Perth, Dundee, and St. Andrew's, having come to a resolution to "put down" adulteration, have published a statement to the effect that a substance called "mineral white" (which is simply plaster of Paris or stucco) is largely used in the manufacture of sweetmeats. Here is the abominable receipt for adulterated lozenges:—12lb. of plaster of Paris! 12lb. of starch! 12lb. of sugar. A grandchild, and domestic, of a gentleman in Clare, who had partaken of some confectionary and bridecake at a nuptial party, were seized with dangerous illness soon after, and but for the skillful remedies quickly applied, the lives of both, in all probability, would have been forfeited. On inquiry, it was ascertained that many articles of confectionary prepared for festive occasions are strongly impregnated with poisonous ingredients, especially in the exterior ornamental parts of these *bon bons*.

## DEATH FROM EATING MUSHROOMS.

Last autumn, five persons were poisoned at Paris, from eating fungus gathered by one of the party in the Bois de Boulogne, and supposed by him to be mushrooms. An inquest was lately held at Ipswich, to inquire into the circumstances connected with the death of Mr. John Carr, of that town, who, according to the evidence of Mr. Bullen, surgeon, died from eating mushrooms. It appears that mushrooms were grilled (not stewed or boiled) for dinner: one of them was a very large one, very black underneath, and in fact only fit for making catsup. The whole of this large one was eaten by the deceased, and part of the smaller one also. The son partook of a part of the smaller one. It was a real mushroom; "but," said the surgeon, "it should be understood that all fungous matter is really poisonous at some parts of their growth." By grilling the mushrooms, the poisonous matter remained in them, and the deceased having no teeth he swallowed it without masticating it. He was perfectly narcotised for hours. Mushrooms are of a narcotic and acid nature. Deceased was perfectly senseless and powerless from the moment he was taken ill. There were no symptoms of apoplexy; in fact they were the very reverse. His pulse was about fifty-six, and showed that he was under the influence of some strong poison. It is extremely important that the public should take this as a warning in the use of mushrooms; they are at all times indigestible, but they should never be taken when the underneath part is black, but only when they are of a light colour.



## BIELA'S COMET.

ON FEBRUARY 28th, 1826, a Comet was discovered by M. Biela, an Austrian officer, and which proved to be one of short period. The time of describing its orbit, is about 6½ years; it was observed in 1832, again in 1839, and from calculations of the observed phenomena, it is predicted to return, and be the nearest to the Sun on February 11th, 1846. The following ephemeris is formed from that of Del Cav. Giovanni Santini, Director of the Observatory of Padua, and which extends from 1845, November 23rd., to 1846, May 6th, and to which we refer those of our readers who may wish to know more particulars of it than is stated below

1846. Month and Day.		At Midnight.		Greenwich Mean Time of the Comet.		Point of the Horizon where the Comet acts.	Distance of the Comet in Millions of Miles from	
		Right Ascension of the Comet.	Declination of the Comet.	South or passing the Meridian.	Setting.		The Sun.	The Earth.
January	2	H. M.	° ' "	H. M.	H. M.			
..	6	23 26	0 13 N	4 39 P.M.	10 44 P.M.	little N. of W.	101½	81½
..	10	23 36	0 18 S	4 33	10 37	W.	97½	79½
..	14	23 47	0 14	4 28	10 30	W.	94	77½
..	18	23 58	0 28	4 24	10 24	W.	91½	75
..	22	0 10	0 42	4 20	10 19	little S. of W.	89	72½
..	26	0 23	0 58	4 17	10 14	..	86½	69½
..	30	0 37	1 19	4 15	10 11	..	84½	66½
..	31	0 51	1 43	4 14	10 7	..	83½	63½
February	3	1 6	2 13	4 13	10 4	..	82½	60½
..	7	1 22	2 48	4 13	10 3	..	81½	57½
..	11	1 40	3 30	4 15	10 1	near W. by S.	81½	54½
..	15	1 58	4 19	4 18	10 0	..	81½	51½
..	19	2 18	5 17	4 22	9 58	..	82½	48½
..	23	2 40	6 20	4 28	9 59	..	83½	45½
..	27	3 3	7 31	4 35	10 1	W. by S.	85	43
..	31	3 29	8 45	4 45	10 5	..	86½	40½
March	3	3 57	10 11	4 58	10 11	near E.S.E.	89½	37½
..	7	4 27	11 14	5 12	10 18	..	91½	34½
..	11	4 59	12 20	5 28	10 28	..	94½	31½
..	15	5 33	13 12	5 46	10 40	..	97½	28½
..	19	6 7	13 49	6 5	10 58	E.S.E.	101	25½
..	23	6 41	14 8	6 25	11 15	..	104½	22½
..	27	7 15	14 7 S	6 41 P.M.	11 31 P.M.	..	107½	19½

From the above it will be seen that the Comet will approach the Sun till about February 11th, at which time it will be a little more than 81 millions of miles distant from him; after that time it will move from the Sun. It will, however, continue to approach the Earth, till near the end of March, at which time it will be the nearest to the Earth, being then about thirty five millions of miles distant; after this time it will recede from the Earth. At the appearance of this Comet, in 1832, Sir John Herschel, in a communication made by him to the Royal Astronomical Society, on the 9th of November, 1832, stated that on the evening of the 23rd of September previous, he saw a whole cluster of stars of the sixteenth magnitude, almost through the very centre of Biela's Comet. There is no prospect of this Comet being seen except through a telescope. The best times to look for it will be, in January, between half-past five o'clock and seven o'clock; in February, between 6h. and 8h.; and in March, between 7h. and 8h. in the evenings.

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WARRACK



1847

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## INTRODUCTION.

THE present or Third ILLUSTRATED LONDON ALMANACK is submitted to the public by the Proprietors, with confidence of its superiority over its predecessors.

The work was commenced in 1845, with a view of furnishing a Repository of Useful Knowledge of permanent value, for constant reference, in Astronomy, Astronomical Occurrences, and the Natural History of the Year; and the peculiar value of the present Almanack, in these respects, will be best shown by the following explanatory summary:—

For information relative to the ASTRONOMICAL DEPARTMENT, which has been entirely under the Superintendence of JAMES GLAISHER, Esq., F.R.A.S., and of the Royal Observatory at Greenwich, the reader is referred to

**SUN RISING AND SETTING.**—In the computation of the Times of the Rising and Setting of the Sun, for this Almanack, a correction of 34' for refraction has been taken into account; the effect of refraction causes him to appear above the horizon sooner in the morning, and later in the afternoon than he actually is. So that at the time indicated in the Calendar pages, as that of Sunrise or Sunset, his centre is 90 deg. 34m. from the Zenith; though he appears to be only 90 deg. The amount of the correction for refraction varies at every place with the declination of the Sun; and on the same day is different in different latitudes. An Auxiliary Sun-rising Table has been computed, including the correction. (See page 54). By the use of this table, the times of Sun Rising and Setting at any place in the British Isles is readily found by attending to the rules there given.

**MOON RISING, SETTING, AND SOUTHING.**—In calculating the time of the Moon's Rising and Setting, 34' has been allowed for refraction, and 57' for parallax; and the calculations are adapted for London. They will be sufficiently near for all places having the same latitude as that city, (for list of these places see auxiliary table for Sun Rising in page 54). The times will be very nearly the same at every place in the British Isles when the Moon is on the Equator. At times when she has North Declination she will rise earlier, and set later at all places N. of London; and she will rise later and set earlier at all places S. of London. At times when she has South declination, she rises later and sets earlier at all places N. of London; and she rises earlier and sets later at all places S. of London than the times at London.

The Times of Southing have been computed for London, and they are true for all places having the same longitude, or for all places situated due N. or S. of London. To all places East of this N. and S. line, the times are somewhat earlier; and to all places W. of the same line, they are somewhat later than those given in the Almanack.

**DURATION OF MOONLIGHT.**—To enable persons by a cursory glance to see the hours of Moonlight, as well as to observe the comparative degrees of it, illustrated or tinted columns are given. At times when the Moon is below the horizon, the hour space is dark, and it is light when she is above the horizon; and these are sufficiently near for the whole country.

**EQUATION OF TIME.**—The interval of time between the Sun being on the Meridian or Southing, on one day, and his being on the Meridian or Southing the next day, is not always the same; and, therefore, Solar days are not equal in duration; about one-half are a little more, and about one-half are a little less than 24 hours. A clock regulated by the Sun, or the Sun-dial, would need frequent adjustment; to avoid this, an imaginary Sun is supposed to move, so that the interval of time between its consecutive passages over the Meridian is always the same, viz., 24 hours; such a time represents a mean solar day, and it is the average of all the apparent solar days in a year. The difference of time between the imaginary Sun and the true Sun passing the Meridian, is called the "Equation of Time," the amount of which at noon on every day, is inserted in the Almanack. There are only four days in the year when apparent and mean time are the same, or the Equation of time is nothing. In the year 1847, these days are April 15, June 15, September 1, and December 25. Between April 15 and June 15, and between September 1, and December 25, the imaginary Sun follows the true Sun, and the "Equation of time" is subtractive; the true time being earlier than that shown by the Sun. Between June 15 and September 1, and between December 25 and April 15, the imaginary Sun precedes the true Sun, and the "Equation of time" is additive. By the assistance of the numbers in this column, a clock can be set by a sun-dial as follows. When "Add" is placed above the number opposite to the day, then the clock ought to be set fast on the time shown by the sun-dial, and when "Subtract" is above the numbers, the clock ought to be set so much slower.

Example—When the Sun shows noon on the sun-dial on June 1, and July 1, what are the true times?

On June 1, from the Almanack, the Equation of time is, Subtract, 2m. 36s., therefore the clock should be 2m. 36s. before noon; so the true time is 11h. 57m. 24s. A.M. On July 1, from the Almanack, the Equation of time is, Add, 3m. 22s., therefore the clock should be 3m. 22s. after-noon, or the true time is 0h. 3m. 22s. P.M.

The greatest difference between mean time (common clock time) and apparent time (time by the sun-dial) occurs on the 3rd of November, and it is 16m. 17s. subtractive; and the instant the Sun's centre is on the Meridian, or Southing, or the time by a sun-dial indicates noon, the time by a clock regulated to mean time, should be 16m. 17s. to noon, or the true time is 11h. 43m. 43s. A.M. On the 11th day of February, the greatest additive difference occurs, viz., 14m. 32s., and when the Sun is on the Meridian, or noon is shown by a sun-dial, a clock regulated to mean time, should be 14m. 32s. after noon, or the true time would be 0h. 14m. 32s. P.M. All the calculations throughout this Almanack have been adapted to London mean time. Mean time is easily reduced to apparent, by applying the Equation the reverse to that mentioned in the Almanack.

**ASTRONOMICAL PHENOMENA DURING THE MONTH.**—The constellation in which the Moon is on every day is always mentioned, so that persons can very easily learn the Zodiacal constellations by this means; when she is on the Equator, and when she has N. declination, which is the interval of time between being on the Equator and going N. till she is on the Equator again; and she has S. declination during the interval of time of being on the Equator and going S. till she is again on the Equator. Also, all the interesting phenomena relative to the Planets are mentioned. In these accounts frequent mention is made of angular distance, (For method of estimating, see *Almanack of last year, October*).

**ECLIPSE OF THE SUN ON OCTOBER 9.**—This fine Eclipse will be visible throughout the British Isles, and annular across the whole of France, and the south of England (See the Chart). A very great diminution of light during the continuance of the Eclipse is not to be expected. It is possible that the Planets Venus and Jupiter may be visible to the naked eye, Mars is also above the horizon, and Mercury will rise at 7h. 33m. A.M., being about the time of the middle of the Eclipse.

**TWILIGHT.**—Twilight is the faint light which precedes sunrise or follows sunset. It is caused by a portion of the Sun's rays, which, after refraction, are reflected at the surface of our atmosphere. The time has been calculated on the supposition that day breaks when the Sun is 18 deg. below the horizon, the quantity usually assumed, but which is probably too great by 4 or 5 degrees.

**PHASES OF THE MOON.**—The times of the Phases of the Moon are computed for the Meridian of London, but may be easily reduced to that or any other Meridian, by adding or subtracting the difference of longitude in time, according as the same is E. or W. of that city.

**LE VERRIER'S PLANET.**—In our Almanack it will be seen that the Planet Uranus is always placed last, it being supposed that it was the last and farthest of the Planets from the Sun; but, the month of September, 1846, witnessed one of the most remarkable triumphs of Theoretical Astronomy ever recorded; viz., the discovery of a New Planet, beyond Uranus, far exceeding him in size. Its existence was established; its orbit and its place in the heavens pointed out, three weeks before its discovery. The merit belongs to M. Le Verrier alone; who performed these calculations, and published them for the guidance of Astronomers. The history of the discovery, with other particulars, will be found at page 55.


All the headings of the other tables, &c., explain themselves.

On the Third Page of each month is a series of *tableaux* of memorable events, carrying out in a true spirit what is usually and properly introduced into our Almanack; not for occasional reference only, but to cherish respect for these landmarks of British History.

The Fourth Page of each month, as in last year's Almanack, is devoted to Natural History. The whole of this portion is from the very able pen of the well-known Author of several Works on Botany and Natural History, Mrs. LOUDON; and the interesting series of Illustrations to this department has been drawn and engraved by Miss LOUDON, under the immediate superintendence of Mrs. LOUDON; and will, therefore, be a sufficient guarantee of sound information.

The Illustrations heading the Calendar, are from the masterly pencil of WILLIAM HARVEY, and engraved in the first style of art, by LINTON, illustrative of the National Sports in the countries of the Earth particularised.

The remaining portion of the Almanack is fully occupied with Useful Tables, &c., corrected to the latest moment before going to press.

 The Index of the Contents will be found upon the last page.



## ON THE CALENDAR.

THE SUN naturally regulates the beginnings, durations, and ends of the seasons; and the Calendar is constructed to arrange the smaller portions of the year.

The Calendar divides the year into 12 months, containing 365 days. It is desirable that the same parts of the same seasons should be always denoted by the same days of the same months.

This would be the case if the civil year of 365 days were equal to the Astronomical year, but the latter is greater: and if the Calendar should invariably distribute the year into 365 days, each part of the year, (the vernal equinox for instance), would in progress of time happen on every day of the civil year.

Julius Cæsar adopted the mode of correcting the Calendar by making every fourth civil year to consist of 366 days. But this Julian correction itself was found to need correction, as the length of the year became known to greater precision. This correction, at the time of Pope Gregory, in 1582, had amounted to 10 days, the vernal equinox falling on the 11th instead of the 21st of March, at which period it fell correctly at the time of the Council of Nice in the year 325. To obviate this inconvenience, Gregory ordered that the day succeeding the 4th of October, 1582, instead of being called the 5th should be called the 15th; thus suppressing 10 days. This act reformed the Calendar: in order to correct it in future ages, it was prescribed that the intercalary day of the Julian correction should be omitted at certain convenient periods.

The adoption of this change, which is called the Gregorian, or new style, did not take place in England till 1752. It was then enacted that the year should commence on the 1st of January, instead of March 25; and that in the year 1752, the days should be numbered as usual till September 2, when the day following should be accounted the 14th of September, thus omitting 11 days.

## THE PRINCIPAL ARTICLES OF THE CALENDAR, FOR THE YEAR OF OUR LORD 1847.

Gregorian or New Calendar.	Julian or Old Calendar.	New Calendar.	Old Calendar.
Dominical Letter C	E	Solar Cycle 8	8
Golden Number 5	5	Epact 14	25
Roman Indiction 5	5		

**DOMINICAL LETTER.**—The seven days of the week, reckoned as beginning on the 1st day of January, are designated by the first seven letters of the alphabet; and the one of these which denotes Sunday, is the Dominical Letter. As the present year begins on Friday, call it A, the next is B, and C falls on the Sunday, and this letter answers to the Dominical letter. If there were exactly 52 weeks in the year the Dominical letter would be always the same.

**THE GOLDEN NUMBER.**—At the end of every 19 years the new and full Moons happen at very nearly the same times of the year. This "Cycle of the Moon" terminated the year before the Christian era. Therefore, to find the golden number, or number of year in this cycle, add 1 to the date; divide the sum by 19; the quotient is the number of cycles of the moon since the birth of Christ, and the remainder is the golden number, so called from its being marked by the Greeks in letters of gold. As the present year is 1847, this number increased by 1 is 1848, and divided by 19, is 97 cycles, and there remains 5, the golden number.

**THE SOLAR CYCLE,** is the number of years that elapse before the Sunday's throughout the year happen on the same days of the month. This cycle is 28 years; and 9 years of the Cycle had elapsed before the birth of Christ. Therefore, to find the cycle of the Sun, add 9 to the given year, and divide by 28; the quotient is the number of cycles since the birth of Christ; and the remainder is the cycle of the Sun, as, for this year, add 9 to 1847 the sum is 1856; which, divided by 28, the quotient is 66 cycles, and the remainder is 8, the solar cycle.

**THE EPACT** is the Moon's age for the 1st day of January, and it is the difference between the beginning of the solar and the lunar year.

**THE ROMAN INDICTION.**—This cycle has no connexion with the motions of the Sun and Moon, except that it consists of 15 years. It was established by the Emperor Constantine in the year 312, regulating certain payments due by the Roman Landholders to their Government.

## CORRESPONDENCE OF THE YEAR 1847 WITH ANCIENT ERAS.

The year of the Julian Period ..	6560	From the foundation of Rome ..	2600
From the first Olympiad ..	2623	From the epoch of Neboasser ..	2594

## FIXED AND MOVEABLE FESTIVALS, ANNIVERSARIES, &amp;c.

Epiphany ..	Jan. 6	Pentecost—Whit Sunday ..	May 23
Martyrdom of King Charles I. ..	30	Birth of Queen Victoria ..	24
Septuagesima Sunday ..	31	Restoration of King Chas. II. ..	29
Quinquagesima—Shrove Sun. Feb. ..	14	Trinity Sunday ..	30
Ash Wednesday ..	17	Corpus Christi ..	June 3
Quadragesima—1st Sunday ..	21	Accession of Queen Victoria ..	20
in Lent ..	21	Proclamation ..	21
St. David ..	March 1	St. John Baptist—Midsum- ..	24
St. Patrick ..	17	mer Day ..	24
Annunciation—Lady Day ..	25	Birth of Dowager Queen ..	Aug. 13
Palm Sunday ..	28	Adelaide ..	Aug. 13
Good Friday ..	2	St. Michael—Michaelmas Day ..	Sep. 29
EASTER SUNDAY ..	4	Gunpowder Plot ..	Nov. 5
Low Sunday ..	11	Birth of Prince of Wales ..	9
St. George ..	23	1st Sunday in Advent ..	28
Rogation Sunday ..	May 9	St. Andrew ..	30
Ascension Day—Holy Thurs- ..	13	St. Thomas ..	Dec. 21
day ..	13	Christmas Day ..	25

## ASTRONOMICAL SYMBOLS AND ABBREVIATIONS EXPLAINED.

☉ The Sun	☿ Quadrature	S Seconds of Time
☾ The Moon	♌ Opposition	♈ Aries
☿ Mercury	♍ Ascending Node	♉ Taurus
♀ Venus	♎ Descending Node	♊ Gemini
♁ or 5 The Earth	N. North	♋ Cancer
♂ Mars	E. East	♌ Leo
♂ Vesta	S. South	♍ Virgo
♂ Juno	W. West	♎ Libra
♂ Pallas	° Degrees	♏ Scorpio
♂ Ceres	" Minutes of Arc	♐ Sagittarius
♃ Jupiter	" Seconds of Arc	♑ Capricornus
♄ Saturn	H Hours	♒ Aquarius
♅ Uranus	M Minutes of Time	♓ Pisces
♄ Conjunction		

Two celestial objects are said to be in conjunction when they have the same longitude; to be in quadrature when their longitudes differ by 90 deg.; and to be in opposition when this difference amounts to 180 deg.

## CALENDAR OF THE JEWS, FOR THE YEAR 1847.

5607	1846	NEW MOONS AND FEASTS
Tebeth .. 1	December .. 2	Fast: Siege of Jerusalem
" .. 10	" .. 1847	
Schebat .. 1	January .. 18	Elias
" .. 5	" .. 22	Xylophoria
" .. 9	" .. 26	Fast: Memory of the War of the Ten Tribes against Benjamin
" .. 23	February .. 9	
Adar .. 1	" .. 17	Fast for the Death of Moses
" .. 7	" .. 23	Fast: Esther
" .. 13	March .. 1	Purim: Feast of Haman
" .. 14	" .. 2	Schuschan Purim
" .. 15	" .. 3	
Nisan .. 1	" .. 18	Passover begins
" .. 15	April .. 1	Second day
" .. 16	" .. 2	Seventh day
" .. 21	" .. 7	Passover ends
" .. 22	" .. 8	Fast: the Death of Joshua
" .. 26	" .. 12	
Ijar .. 1	" .. 17	Consecration of the Temple
" .. 7	" .. 23	Pasah Schemi
" .. 14	" .. 30	Lag Beomer
" .. 18	May .. 4	
Sivan .. 1	" .. 16	Pentecost Holidays, the Feast of Weeks
" .. 6	" .. 21	Second day
" .. 7	" .. 22	Victory of Maccabeus
" .. 15	" .. 30	
Tamuz .. 1	June .. 15	Fast: Seizure of the Temple by Titus
" .. 17	July .. 1	
Ab .. 1	" .. 14	Fast: Destruction of the Temple
" .. 9	" .. 22	
Elul .. 1	August .. 13	Selihot: beginning of the 40 days prayer
" .. 3	" .. 15	Consecration of the walls of Jerusalem
" .. 7	" .. 19	Fast: the end of the year 5607
" .. 29	September .. 10	
5608		
Tisri .. 1	" .. 11	Feast of the new year, 5608
" .. 2	" .. 12	Second day
" .. 3	" .. 13	Fast: Death of Gedaliah
" .. 7	" .. 17	Fast: for the Worship of the Golden Calf
" .. 10	" .. 20	Fast: Day of Atonement
" .. 15	" .. 25	Feast of Tabernacles
" .. 16	" .. 26	Second day of the Feast
" .. 21	October .. 1	Feast of Branches
" .. 22	" .. 2	End of the Feast of Tabernacles
" .. 23	" .. 3	Feast of the Law
Marchesvan .. 1	" .. 11	
" .. 6	" .. 16	Fast: for the Destruction of Jerusalem
Kislev .. 1	November .. 9	
" .. 25	December .. 3	Feast of the Dedication of the Temple
Tebeth .. 1	" .. 8	
" .. 10	" .. 17	Fast: the Siege of Jerusalem

## THE MONTHS OF THE TURKISH CALENDAR.

Hegiri; 1263,	Moharrem 1	(New year) falls on December 20, 1846.
" ..	Safar 1	" .. January 19, 1847.
" ..	Rebi el-Awwel 1	" .. February 17, ..
" ..	Rebi el-Accher 1	" .. March 19, ..
" ..	Dschemâdi el-Awwel 1	" .. April 17, ..
" ..	Dschemâdi el-Accher 1	" .. May 17, ..
" ..	Redscheh 1	" .. June 15, ..
" ..	Schabân 1	" .. July 15, ..
" ..	Ramadan 1	(Month of Abstinence observed by the Turks) .. August 13, ..
" ..	Schewâl 1	" .. September 12, ..
" ..	Dsûl-Kade 1	" .. October 11, ..
" ..	Dsûl-hedschê 1	" .. November 10, ..
" ..	Mobarrem 1	" .. December 9, ..

## LAW TERMS, 1847.

As Settled by Statutes 1, William IV., Cap. 70, S. 6 (passed July, 23rd, 1830):  
Cap. 3, S. 2 (passed, December 23rd, 1830.)

TERMS	BEGINS	ENDS
Hilary Term ..	Begins January 11	Ends February 1
Easter Term ..	" April 15	" May 8
Trinity Term ..	" May 22	" June 12
Michaelmas ..	" Nov. 2	" Nov. 25

UNIVERSITY TERMS, 1847.  
OXFORD.

TERMS	BEGINS	ENDS
Lent ..	January 14	March 27
Easter ..	April 14	May 22
Trinity ..	May 26	July 10
Michaelmas ..	October 11	December 17

The Act, July 6

## CAMBRIDGE.

TERMS	BEGINS	DIVIDES	ENDS
Lent ..	Jan. 13	Feb. 18, Noon	March 26
Easter ..	April 14	May 27, Noon	July 9
Trinity ..	" ..	" ..	" ..
Michaelmas ..	Oct. 10	Nov. 12, Midnight	Dec. 16

The Commencement, July 6



NATIONAL SPORT, ENGLAND—  
STAG HUNT.

M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.				MOON.			DURATION OF MOONLIGHT.			HIGH WATER AT LONDON BRIDGE		EQUA- TION OF TIME.	Day of the Year.
			Rises.	Sets.	DECLI- NATION SOUTH.	DEG. MIN.	Rises. Afternoon.	SOUTH.	Sets. Morning.	Before Sunrise. O'Clock. 2h. 4h. 6h.	After Sunset. O'Clock. 6h. 8h. 10h.	Moon's Age.	Morning	Afternoon	ADD.	
1	F	<i>Circumcision</i>	8 8 4	0 23	2	4 33	8 8 4	0 23	2			15	1 42	2 6	3 43	1
2	S	The Sun rises 3 deg. S. of S.E. by E.	8 8 4	1 22	57	5 31	8 8 4	1 22	57			16	2 26	2 47	4 11	2
3	S	2ND SUNDAY AFT.	8 8 4	2 22	52	6 35	8 8 4	2 22	52			17	3 7	3 26	4 39	3
4	M	Christmas	8 8 4	3 22	46	7 37	8 8 4	3 22	46			18	3 43	3 59	5 7	4
5	Tu	α Arietis Souths 7h. 0m. P.M.	8 8 4	4 22	39	8 42	8 8 4	4 22	39			19	4 18	4 36	5 34	5
6	W	<i>Epiphany</i> , Twelfth Day	8 8 4	5 22	33	9 43	8 8 4	5 22	33			20	4 51	5 9	6 1	6
7	Th		8 8 4	6 22	25	10 46	8 8 4	6 22	25			21	5 26	5 43	6 27	7
8	F	<i>St. Lucian</i>	8 8 4	7 22	17	11 48	8 8 4	7 22	17			22	6 2	6 20	6 52	8
9	S	α Ceti Souths 7h. 30m. P.M.	8 8 4	8 22	9	12 51	8 8 4	8 22	9			23	6 39	6 59	7 18	9
10	S	1st S. AFT. EPIPH.	8 8 4	9 22	1	0 51	8 8 4	9 22	1			24	7 18	7 44	7 42	10
11	M	Hilary Term begins Plough Monday	8 8 4	10 22	52	1 58	8 8 4	10 22	52			25	8 14	8 50	8 7	11
12	Tu		8 8 4	11 22	42	3 4	8 8 4	11 22	42			26	9 23	9 58	8 30	12
13	W	Cambridge T. beg.	8 8 4	12 22	32	4 9	8 8 4	12 22	32			27	10 36	11 13	8 53	13
14	Th	Oxford Term beg.	8 8 4	1 22	22	5 10	8 8 4	1 22	22			28	11 49		9 16	14
15	F	The Sun rises S.E. by E. and sets S.W. by W.	8 8 4	2 22	11	6 9	8 8 4	2 22	11			29	0 18	0 45	9 37	15
16	S	Bat. Corunna, 1809	8 8 4	3 22	0	7 1	8 8 4	3 22	0			30	1 10	1 36	9 58	16
17	S	2ND SUNDAY AFT.	8 8 4	4 22	48	7 35	8 8 4	4 22	48			31	1 59	2 23	10 19	17
18	M	EPIPHANY	7 59 4	22 20	36	8 23	7 59 4	22 20	36			1	2 46	3 9	10 38	18
19	Tu	Capella Souths 9h. 10m. P.M.	7 58 4	24 20	24	8 56	7 58 4	24 20	24			2	3 31	3 53	10 57	19
20	W	Rigel Souths at 9h. 8m. P.M., 30 deg. high	7 57 4	25 20	11	9 25	7 57 4	25 20	11			3	4 14	4 37	11 15	20
21	Th		7 56 4	27 19	58	9 55	7 56 4	27 19	58			4	5 0	5 23	11 33	21
22	F	α Orionis Sou. 9h. 40m. P.M.	7 55 4	29 19	45	10 22	7 55 4	29 19	45			5	5 45	6 9	11 50	22
23	S		7 54 4	31 19	31	10 51	7 54 4	31 19	31			6	6 33	6 57	12 5	23
24	S	3RD SUNDAY AFT.	7 53 4	33 19	17	11 23	7 53 4	33 19	17			7	7 22	7 52	12 20	24
25	M	EPIPHANY — Pitt died, 1806	7 51 4	35 19	2	11 43	7 51 4	35 19	2			8	8 23	9 0	12 35	25
26	Tu		7 50 4	37 18	47	0 43	7 50 4	37 18	47			9	9 37	10 17	12 48	26
27	W	Aldebaran souths at 9h. 1m. P.M. 55 deg. high	7 48 4	39 18	32	1 31	7 48 4	39 18	32			10	10 58	11 36	13 1	27
28	Th		7 47 4	40 18	17	2 25	7 47 4	40 18	17			11		0 12	13 12	28
29	F	Mercury rises 7h. 13m. A.M.	7 45 4	41 18	1	3 23	7 45 4	41 18	1			12	0 40	1 7	13 23	29
30	S	Martyr. K. Chas. I.	7 44 4	43 17	45	4 25	7 44 4	43 17	45			13	1 32	1 54	13 33	30
31	S	SEPTUAGES. SUN.	7 43 4	45 17	28	5 27	7 43 4	45 17	28			14	2 15	2 32	13 43	31



## JANUARY.

THE MOON is full on the 1st. She is in the constellation Gemini, and directing her course towards a point 15° S. of Castor and Pollux, which she passes before rising in the afternoon of the 2nd. On the 2nd and 3rd she is in Cancer, passing through a barren space, but directing her course towards Regulus. On the 4th 5th, and 6th, she is in Leo and Sextans: on the 5th, she will rise a little before Regulus, and she is moving towards Spica Virginis. On the 7th, at 5h. p.m., she is on the Equator and moving Southward. From the 7th, to the 10th, she is in Virgo; on the morning of the 10th, she will rise a little before Spica Virginis. On the 11th, and 12th, she is in Libra, her course being towards a point a few degrees N. of Antares, which star she passes about noon on the 13th, so that during the morning of the 14th, she will be E. of that star, being at the time in Ophiuchus. On the 15th, she is in Aquila, and crosses the Milky Way; on the 17th, she is in Capricornus, and new, but without an eclipse, as she is then nearly 5° from the line joining the Sun and the Earth. On the 18th, and 19th, she is in Aquarius; on the 20th, at 10h. p.m., she is on the Equator, and moving N.; on the 21st, and 22nd, she is in Pisces; the crescent of the Moon is seen after sunset, in the W. on the 21st, nearly in a line with Beta and Gamma Pegasi, two of the stars forming the square of Pegasus. On the 23d, and 24th, she is in Aries; on the 25th, 26th, and 27th she is in Taurus, being on the 25th, a few degrees S. of the Pleiades, and directing her course between Aldebaran and Jupiter, which she will pass before the evening of the 26th, during which she will be due E. of Aldebaran. On the 27th, she will cross the Milky Way; on the 28th, and 29th, she will be in Gemini, on the former day being S.W., and on the latter day S.E. of Castor and Pollux. On the 30th, and 31st, she will be in the barren region of Cancer.

MERCURY will be in the constellation of Ophiuchus between January 1st, and 10th; in that of Sagittarius between the 10th, and the 29th; and on the latter day will pass into Capricornus. He is favourably situated for observing before sunrise. On the 1st, he rises at 6h. 18m. A.M., at the S.E. by E. point of the horizon; he is situated in an imaginary line from the Pole Star, through Alpha Herculis, and continued 36° from the latter star; he is also about 13° W. of Antares. On the 16th, he rises at 6h. 57m. A.M. near the S.E. by E.; he is situated in the line joining the Pole Star and Alpha Lyrae, produced to the distance of 62° from the latter star. On the 27th, he is situated in the line joining the Pole Star and Alpha Aquile, produced to the distance of 31° from the latter star. On the 14th day, before sunrise, he will be about 4° South of the Moon; on the 24th day, at 5h. 35m. A.M. he will be at his greatest distance from the Sun.

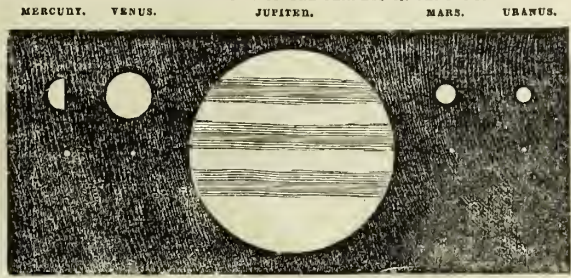
VENUS will be in the constellation of Sagittarius till the 11th, and in that of Capricornus after that time. On the 1st, she souths at 0h. 21m. P.M., at the altitude of 15°, and sets at 4h. 14m. P.M., near the S.W. by W. point of the horizon. On the last day she souths at 1h. 0m. P.M. at the altitude of 23°, and sets at 5h. 42m. near the W.S.W. On the 1st, she is about 33° S.S.W. of Alpha Aquile; on the 8th, she is situated in the line joining the Pole Star, and Alpha Aquile, and at the distance of 31° from the latter star; On the 17th, and 18th, she is situated in the line joining the Pole Star, and that remarkable group of stars a little to the E. of Alpha Aquile called Delphinus, and at the distance of 35° from them. On the former of those days she is situated about 6° below the moon. On the 27th, she is in a line joining the Pole Star and Beta Aquarii, at the distance of 9° S. of the latter star. She will be an evening star from January 1st, to the middle of September. On the 13th, at 5h. 44m. P.M. she will be at her greatest distance from the Sun.

MAJAS will be in the constellation Scorpio till the 4th; in that of Ophiuchus between the 4th and the 27th; and in that of Sagittarius after the 27th. He is a morning star. From the 1st to the 11th, he rises at 5h. 4m. A.M.; on the 16th, at 5h. 2m. A.M., and on the 31st at 4h. 56m. A.M.; at the S.E. by E. point of the horizon throughout the month. On January 1st, he is situated about 9° N.W. of Antares, and about 1° below Beta Scorpi, a star of the 3rd magnitude; he is moving towards Antares till the 8th, on which day he is in an imaginary line joining the Pole Star, and Antares, and about 5° N. of the latter star; on the 24th, he is in the line joining the Pole Star and Alpha Herculis produced to the distance of 38° S. of the latter star, and at the same time he is about 12° E. of Antares; on the 30th day, he is in the line joining the Pole Star and Alpha Ophiuchi, produced to the distance of 36° from the latter star; and he is 17° E. of Antares. The Moon passes him on the 29th.

JUPITER will be in the constellation Taurus during the month, and sets at the N.W. by W. point of the horizon; on the first day, at 5h. 46m. A.M., and on the

last day at 3h. 40m. A.M. He souths on the 1st day at 9h. 42m. P.M., and on the last day at 7h. 38m. P.M., at an altitude of 59° throughout the month. He rises a little after noon, and is an evening star, and situated so as to excite much attention. The motion of this Planet among the stars is slightly westward, during the first part of the month, and at the latter part he is nearly stationary among them: during the month he is from 5° to 7° N. of Aldebaran; and from 13° decreasing to 11° East of the Pleiades. The Moon is near him on the 25th, her course being above Aldebaran and below this Planet.

## RELATIVE APPEARANCE OF THE PLANETS IN JANUARY.



Scale forty seconds of arc to one inch.

SATURN will be in the constellation of Aquarius all the year. On January 1st, he sets W.S.W. at 8h. 10m. P.M.; and on the last day at 6h. 31m. P.M., near the W.S.W. point of the horizon. He souths at an altitude of 25° on every day in the month; on the 1st at 3h. 18m. P.M., and on the last day at 1h. 33m. P.M. During the month his motion is slowly eastward among the stars; on the 1st day, he, with Alpha Pegasi and Alpha Aquile, form a large triangle, of which the planet occupies the lower angle, he is 30° distance from the former, and 51° from the latter star; during the month the former distance decreases, and the latter increases by about 4°. On the 18th, the Moon is W. of Saturn; before the evening of the 19th she passes him, so that she is E. of him on the 19th.

URANUS will be in the constellation of Cetus till April 9th. He souths on every day in January, at an altitude of 42°, on the 1st at 5h. 56m. P.M., and on the last at 4h. 1m. P.M. He sets midway between the W. and the N. by N. points of the horizon. On the 1st, at 0h. 15m. A.M.; on the 6th, he sets twice on the same day, viz., at 0h. 3m. A.M., and again at 1h. 59m. P.M.; and on the last day, he sets at 10h. 25m. P.M. His motion among the stars is slowly E. till July. He is situated nearly in a line joining Beta and Gamma Pegasi, being 11° S.E. of the latter star. The Moon passes him at 3 o'clock in the morning of the 22nd.

## POSITION OF THE CONSTELLATIONS RISING ON THE MERIDIAN, AND SETTING ON THE 1st. DAY AT 10m. P.M.

Constellations Rising.	Constellations on the Meridian	Constellations Setting.
Corona Borealis in N. by E.	A part of Draco	Lyra in N.N.W.
The head of Boötes in N. E.	The haunch of Ursa Major 30° above N. Horizon (The Pole Star)	The head of Cygnus in N. W. by N.
Coma Berenices in N.E. by E.	Polaris (The Pole Star)	The hind legs of Vulpecula in N.W.
The hind legs of Leo in E.	The body of Camelopardalus between Polaris and the Zenith	The head of Pegasus in W. by N.
Sextans	Auriga 80° above S. Horizon	The preceding fish of Pisces in W.
A part of Hydra in E.S.E.	The head of Taurus 60° above S. Horizon.	The tail of Cetus in S.W. by W.
A part of Argo Navis in S.E.		
The hind legs of Canis Major S.S.E.		

On February 1st, at 8h. and on March 1st, at 6h. the Constellations will occupy the same positions.

Days of the Month.	Length of Day, or number of hours between sunrise and sunset.	Number of Hours and Minutes the Day has increased since the Shortest Day.	Time of Day-break, or beginning of Twilight.	Time of Twilight Ending.	JUPITER'S SATELLITES.			OCULTATIONS OF STARS BY THE MOON.			
					Eclipses of			Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
					1st Sat.		2nd. Sat.				
					Emersion.	Emersion.	Emersion.				
1	7 52	0 7	6 3 A.M.	6 5 P.M.	D. H. M.	D. H. M.	D. H. M.	Lambda Gemlnorum	5	{ 2 2 9 A. M. 3 17 "	Bright Dark
6	7 59	0 14	6 2 ,,	6 11 ,,	2 2 20 A. M.	3 8 49 P. M.	7 11 11 P. M.				
					10 10 45 P. M.		15 1 48 A. M.				
11	8 6	0 21	6 1 ,,	6 15 ,,	12 5 14 P. M.			Alpha 1 Cancri	6	{ 4 0 33 " 1 35 "	Bright Dark
16	8 18	0 33	5 58 ,,	6 22 ,,	18 0 40 A. M.		10 5 28 P. M.				
21	8 31	0 46	5 55 ,,	6 28 ,,	19 7 9 P. M.		10 7 54 P. M.				
26	8 47	1 2	5 50 ,,	6 37 ,,	25 2 36 A. M.		17 9 29 P. M.	h Virginis	6	{ 10 1 4 " 1 43 "	Bright Dark
31	9 2	1 17	5 45 ,,	6 43 ,,	26 9 5 P. M.						
								Delta 2 Tauri	4	{ 26 2 14 " 3 5 "	Bright Dark

## TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth, in each Lunation.

	Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.									
		MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.	
		Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination South.
FULL MOON ..	1D. 2H. 42M. P.M.	1 17h. 8m.	21° 7'	19h. 3m.	23° 29'	16h. 0m.	20° 24'	4h. 26m.	21° 1'	22h. 1m.	13° 45'
LAST QUARTER ..	9 6 40 P.M.	6 17 32	22 15	19 30	22 49	16 15	21 6	4 24	20 58	22 3	13 35
NEW MOON ..	17 0 45 A.M.	11 18 0	23 7	19 57	21 52	16 29	21 43	4 22	20 56	22 5	13 24
FIRST QUARTER ..	23 4 18 P.M.	16 18 31	23 35	20 23	20 38	16 44	22 16	4 21	20 54	22 7	13 13
FULL MOON ..	31 8 29 A.M.	21 19 3	23 34	20 50	19 9	16 59	22 44	4 20	20 53	22 9	13 1
APOGEE ..	6 6 P.M.	26 19 36	23 1	21 15	17 27	17 14	23 7	4 20	20 52	22 11	12 49
PERIGEE ..	18 3 P.M.										

Right Ascension is Angular Distance, measured on the Equator from the first point of Aries, to the declination circle passing through the Star or Planet, expressed in time at the rate of 15 deg. per hour.



## January Anniversary.



EXECUTION OF KING CHARLES I.

## DEATH OF CHARLES I.

This "anniversary" of English history is one of the darkest, the deepest, and most impressive of any age or time; the death of Charles the First has a monumental record in our metropolis and more than a monumental record in the heart of posterity and the memories of reading men. Except those haunting themes of poetry presented in the life and death of Mary Queen of Scots, there are few subjects in English history—isolated, by their peculiar beauty and absorbing interest, from all meaner incidents—more noble in spirit, more touching in remembrance, more forcible in impression, and more absolutely appealing by their character to the imagination and every soul of the painter, than this of the last moments of the fated Monarch. The associations that crowd themselves into the memory with the characters which form the grouping of the scene—the recollection of events which immediately preceded it in the awful drama of the times—the shadows of a dark history passing in pageantry before the mind, with strange contrasted forms of rebellion and fidelity, of courage and cowardice, of virtue and treachery, of piety and blasphemy, of grace, loveliness, affection, with selfishness, ferocity and ambition: all the bad and good elements of humanity, in short, brought strikingly into play—these thoughts and memories, blending with the full inspiring awe and interest of the scene itself, lend it a pervading fervour and a deepened charm, and invest it with a sublime poetry that wears its intense beauty not more in the grand reality of the breathing picture, than in the visions and aspirations of the gazer's mind. The subject, too, possesses an universality, for the history of the death of Charles is one familiar to the ear of the world. It was a life-sacrifice extorted by the rage of a people, and given by its victim without shame or fear. Charles was, indeed, perhaps more a King upon the scaffold than in any other contingency of his disturbed unpeaceful life. His countenance was described by the poets and historians of that and after times as wearing a look of resignation most dignified and serene:—

No storm is in his human heart,  
No strife upon his brow,  
Where calmness, like a patient child,  
Sits almost smiling now!  
Seems the meek Monarch, as like one  
Whose gentle spirit sings  
Its song of solace to the soul  
Before it spreads its wings!  
And filling, ere it takes its flight,  
His features with a holy light!

Yet that serene heavenly look  
Wears well its taint of earth;  
And mortal majesty retains  
The impress of its birth!  
The lion doth not hang his mane,  
The eagle droop his wing;  
The lofty glance, the regal mien,  
Fall only with the King;  
And Charles's calm, unquailing eye  
Shames all who thought he feared to die!

These last lines would seem to be derived from a sentence of D'Israeli's, with reference to the undignified assertions, then made by certain traitors, impugning the courage of their Monarch, "These mean spirits," says the eloquent writer "had flattered themselves that he who had been cradled in royalty—who had lived years in the fields of honour—and was now, they presumed, a recreant in imprisonment—the grand delinquent of England," as they called him—would start in horror at the block. This last triumph, at least, was not reserved for them; it was for the King." The triumph depicted here, however, is loftier than that of mere human exultation, which both poet and historian imply; it is the high, pure, simple, truth of virtue—mild in the eye, bland upon the brow, gentle in the utterance; it is the triumph of the good spirit pouring forth, to a world it would console rather than rebuke, its parting consciousness of peace: "I go from a corruptible to an incorruptible crown, where no disturbance can have place." These holy words convey the whole strength and meaning of the Monarch's attitude and features.

The immediate act of the execution has thus been forcibly described:—"Men could discover in the King no indecent haste or flurry of spirits—no trembling of limbs—no disorder of speech—no start of horror. The blow was struck. An universal groan, as it were—a supernatural voice—the like never before heard, broke forth from the dense and countless multitude. All near the scaffold pressed forward to gratify their opposite feelings by some memorial of his blood—the blood of a tyrant or a martyr! The troops immediately dispersed on all sides the mournful or the agitated people."

The following verse from a poem published on the subject, in the *Times Newspaper*, is a sort of paraphrase of Hume's account of the immediate consequences of Charles's execution.

A few brief moments and the martyr dies:  
Dies in that sweet serenity of soul!  
Then rush quick tears into the nation's eyes,  
Over all hearts Grief's sudden waters roll,  
And Sorrow raves and wails without control!  
Now brave men's spirits are how'd down to earth,  
Slander is hushed, and vengeance droops her wing,  
And women give their babes untimely birth,  
Shook'd at the murder of their honoured King!  
And misery flings her mourning over mirth,  
And fame (too late) is loud with the lost Monarch's worth.

\* See Hume.



## JANUARY.

As the words Natural History are generally associated with ideas of flowers, birds, and insects, the subject appears particularly barren in January, when the ground is usually hard with frost, or covered with snow, and scarcely any birds or insects can be seen. Yet even at this dreary and desolate season there is much to interest the lover of nature.

Frost itself presents many curious phenomena. When the temperature of the atmosphere sinks below the freezing point, ponds, and other pieces of still water, have their surface gradually changed into a thin coating of ice, and the aqueous particles on the surface of the earth are congealed and hardened in the same manner. The surface of the water being frozen, imparts its cold to the layer of water beneath, which also freezes, and in its turn freezes a layer beneath it, till in time the ice becomes thick enough to bear enormous weights. A similar operation goes on in the ground; but as the layers freeze more slowly, the frost seldom penetrates more than six inches deep into the earth in any part of Great Britain; and even in the hardest frosts, the earth below the part which is frozen is as warm as in summer, or about 58°. When frost kills plants it is by freezing their sap, which, of course, expands when frozen, and thus requiring more space than it had before, tears asunder the veins which contained it.

Hoar frost is merely frozen dew. On calm clear nights a great radiation of heat takes place from the surface of the earth, and the earth becoming suddenly chilled, communicates its coldness to those strata of the atmosphere which lie nearest to the ground, and these being laden with vapour, the moisture they contain is condensed by the sudden depression of the temperature, and falls in the shape of dew, covering the earth and trees with drops of moisture. In the summer these drops evaporate in the heat of the sun, but in frosty weather they become frozen into a covering of crystal.

It was formerly believed that the 14th of January was the coldest day in the year; that the sun always shone on the 22nd; and that if St. Paul's day (the 25th) should be fine, the year would be a productive one:—

If St. Paul's day be fair and clear,  
It doth betide a happy year;  
But if by chance it men should rain,  
It will make dear all kind of grain;  
And if the clouds make dark the sky  
Then neat and fowls that year shall die;  
If blustering winds do blow aloft  
Then wars shall trouble the realm full oft.

Snow is produced when the atmospheric temperature falls suddenly below the freezing point, at a time when the clouds are loaded with moisture. This moisture is congealed as it falls, and if the atmospheric temperature continue below the freezing point till the frozen particles reach the earth, they take the form of snow; but should the atmosphere be warmer near the surface of the earth than it was in the region of the clouds, the frozen particles melt as they descend, and reach the ground in the shape of sleet. Hail, on the contrary, is formed by the atmosphere near the surface of the earth being colder than that of the clouds, so that the aqueous particles, which leave the clouds in the shape of rain, become frozen into hail before they reach the earth. In this way hail often happens after rain has fallen violently in very hot weather; for, as heat ascends, the atmosphere remains excessively hot after the surface of the ground has been cooled by the rapidly descending rain, and consequently the rain drops are chilled and frozen as they approach the earth. As a curious illustration of the theory explaining the formation of snow, Dr. Robertson mentions that one severe winter, a pane of glass having been accidentally broken in an assembly-room at St Petersburg, the stream of cold air which was admitted instantly congealed the vapour in the room, which fell in a shower of snow.

There are very few plants in flower at this season. The holly, the mistletoe, and the ivy will probably have some berries left, and a few golden blossoms may yet be found on the dwarf furze (*Ulex minor*), but these are only lingering remnants of the former year. The common groundsel and purple dead nettle or red archangel, are, however, generally in flower; and several of the mosses and lichens are in their greatest beauty. One of the latter, which is generally found on old palings, the yellow tremella, is sometimes called St. Gudul's lamp, because it first appears about St. Gudule's day (January the 8th), and because its shining, yellow, jelly-like substance, glitters and quivers in the sun like the light of a feeble lamp. The common, or wall screw-moss (*Tortula muralis*) generally



SCREW MOSS.

ripens its seeds in this month. This moss, which grows almost everywhere, on old walls and other brickwork, and what at other seasons looks like patches of dark green velvet, if now examined closely, will be found to have springing from its base numerous very slender stems, each of which terminates in a dark brown case, which is, in fact, its fruit. As the fruit ripens, a little cap which covers it, like an extinguisher, rises gradually and is at last thrown off; and when the lid of the fruit, which is also conical, falls off, a curious tuft of twisted hairs appears, forming a kind of fringe, and it is from these twisted hairs that the plant takes its popular name of screw-moss. If a patch of the moss is gathered when in this state, and the green part at the base is put into water, the threads of the fringe will uncoil and disentangle themselves in a most curious and beautiful manner, and thus afford an opening to the seeds, which are exceedingly small, and are contained within a thin bag, attached to the central column of the case. It may here be mentioned that all mosses and lichens are more easily detached from the rocks and walls on which they grow in frosty weather than at any other season, and consequently they are best studied in winter. Many of them, also, are in fruit at this season.

About the 21st of January (St. Agnes's day), the Christmas rose, or black hellebore comes into flower, and hence the plant was formerly dedicated to St. Agnes, and numerous virtues were assigned to it, in addition to those which it really possesses. The flower of this plant is large and handsome, like a single blush rose; and the root, which is thick and fleshy, looks quite black, when first taken out of the ground; but this dark colour is only in the outer skin, which readily peels off, and leaves a white and succulent substance, which is the part

used in medicine. The bear's foot, or stinking hellebore, also produces its curious purplish flowers about this season:

Its petals green, o'erlapped and closed,  
Present each arched converging lip,  
Embroidered with a purple tip,  
And green its floral leaves expand,  
With fingers like a mermaid's hand.

MANT.

Towards the close of the month the Winter aconite frequently unfolds its bright yellow flowers, placed, as it were, in a salver of green; and about the 27th of January the first snow drop is frequently seen, attended by what is called the Scotch crocus, the flowers of which are white, regularly streaked with very dark blackish purple.

The robin redbreast and the common wren are among the few birds that sing in January; but they are said to suspend their music when the frost is very hard; and has continued some time. It is at this season that the beautiful red breast of the robin has its most brilliant hue. In spring the red feathers lose their lustre, and the bird having a mottled breast all summer can scarcely be distinguished from the redstart, till its autumnal moult, when it recovers its characteristic feathers. Young redbreasts, hatched in the spring, do not display any scarlet feathers on the breast till after they have moulted in the following autumn.

High is his perch, but humble is his home,  
And well conceals, sometimes within the sound  
Of heartsome mill-lark, where the spacious door  
White-dusted, tells him plenty reigns around;  
Close at the root of hriar bush, that o'erhangs  
The narrow stream, with shealings bedded white,  
He fixes his shade and lives at will.  
Of near some single cottage he prefers  
To rear his little home; there, pert and apruce,  
He shares the refuse of the goodwife's churn,  
Nor seldom does he neighbour the low roof  
Where tiny elves are taught.

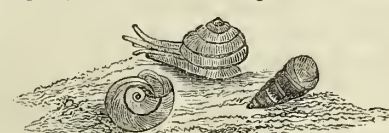
GRADAME.

Starlings are seen in great numbers in the month of January. It is supposed by many naturalists that they stay in Great Britain all the year, and that they only migrate to the south in winter, returning northward in spring. Their food is chiefly insects, but when these cannot be obtained they will eat grain. The flight of the starling is not undulated, and it walks or runs on the ground like the wagtails and the larks, but never hops like the thrush. In severe winters starlings are sometimes found in pigeon-houses, where it is supposed they have ventured to protect themselves from the cold. The golden-crested wren is frequently seen in January. It is the smallest of the British birds. Its weight seldom exceeds eighty grains, and its length is rarely more than three inches. The male has a beautiful orange crest, but the crest of the female is much smaller and less conspicuous. This little bird remains uninjured during the severest weather, and it is said to sing even when the snow is falling. Its nest, which is very small, is composed of green moss, and it is said to have the opening on one side. The eggs are scarcely larger than peas, and they are white, with a tinge of pink. It is a singular fact in the history of this bird that eggs are frequently found that appear to have been laid the previous season, but never set upon. Sparrows are found abundantly at this season, as they are at every other; and fieldfares, larks, and redwings, are frequently seen on the banks of rivers searching for insects, which are sometimes found in such places, even upon the snow.

Insects are generally torpid in this month. Caterpillars, grubs, and maggots are sometimes found in the pupa state, but they are generally either buried in the ground or hidden in some secluded place, where it is only by chance they can be discovered. The eggs of insects may, however, be found in great abundance, though they are generally so carefully concealed as only to be recognised by a naturalist. The twigs of several kinds of trees will be found to have rings of what look like beads upon them, but which are, in fact, the eggs of the lackey moth glued so firmly together that they cannot be separated without the aid of a penknife. The eggs of the gipsy moth are covered with little tufts of down; and those of the vapourer are found on the outside of the web-like bag which served the female for her cocoon. Snails shut themselves up for the winter by means of what is called an operculum, which is a shell-like substance just large enough to fill the opening of the shell, to which the snail glues it with a strong cement, having previously fixed herself to a wall or tree by a portion of the same glutinous substance, and in this state she remains without either air or food till recalled to life by the warmth and moisture of spring. In the countries where snails are eaten, they are only used while in this state of hibernation. They are fattened in what are called snail gardens, that is, in broad shallow pits sunk in the ground. In these the snails are kept and fed with fresh leaves, bran, and potatoes, during the summer, and in the winter, when they fix themselves against the walls of the pits, they are collected, packed in casks, and sent to market. It is said that four millions of snails are exported every year from the city of Ulm alone, and yet there are snail gardens in various other parts of Germany. The common garden snail (*Helix aspersa*) is never eaten, and it is only the large apple snail (*Helix Pomatia*) which is used as food. This large snail is not common in England, but it is found at Dorking and in some other places.



EGGS OF THE LACKEY MOTH.



MOOR SNAIL AND MOUNTAIN BULIMUS.

There is a kind of snail (*Helix virgata*), common in Devonshire, at this season, which is so small as to be generally found sticking to the blades of grass, together with a species of *Bulimus*; and these molluscous animals being eaten by the sheep with the grass, are said to afford a most fattening nourishment, and to make the mutton remarkably sweet. Many persons who are not observers of nature are not aware how many different kinds of snail are to be found, even in Great Britain. In different parts of the world there are two hundred and fifty living species known and described, and sixteen fossil kinds. Some of the foreign living kinds are very beautiful, their shells being spotted with various brilliant colours. Even among the common garden snails some are pink or yellowish, and others curiously banded. The banded snail (*Helix nemoralis*) differs from all the other kinds in living principally upon earth worms, or bits of meat. This was discovered accidentally by a little girl, the daughter of an eminent naturalist, who having picked up one of these pretty snails, and tried to feed it with various kinds of leaves without effect, at last gave it a piece of meat from her own dinner, which, to her delight, it ate greedily; by a series of further experiments it was found that this snail is really carnivorous.



NATIONAL SPORT, SCOTLAND—  
OTTER HUNT

M D	W D	ANNIVERSARIES, OCCU- RENCES, FESTIVALS, &c.	SUN			MOON			DURATION OF MOONLIGHT			HIGH WATER AT LONDON BAIRGE			EQUA- TION OF TIME.	Day of the Year
			Rises.	Sets.	DECLINA- TION South	Rises Afternoon	Sets Morning	Sets. Morning.	Before Sunrise. O'Clock. 2h. 4h. 6h.	Moon's Age.	Aft. Sunset. O'Clock. 6h. 8h. 10h.	Morning.	Afternoon	Add.		
1	M	Hilary Term ends—Pheasant & Partridge Shooting ends	7 41 4	47 17 11	11	6 29	0 38	7 39		15		2 52	3 9	13 51	32	
2	Tu	<i>Candlemas Day</i>	7 40 4	49 16 54	54	7 32	1 21	8 4		16		3 25	3 41	13 59	33	
3	W	<i>St. Blaise</i>	7 38 4	50 16 37	37	8 34	2 4	8 26		17		3 56	4 12	14 6	34	
4	Th	Aldebaran Souths 7h. 50m. P.M.	7 36 4	52 16 19	19	9 36	2 46	8 48		18		4 25	4 45	14 12	35	
5	F	Sir R. Peel b. 1788	7 34 4	54 16 1	1	10 39	3 28	9 11		19		4 59	4 13	14 17	36	
6	S	<i>St. Agatha's Day</i>	7 32 4	56 15 43	43	11 43	4 11	9 34		20		5 28	5 46	14 21	37	
7	S	SEXAGESIMA SUN.	7 30 4	57 15 24	24	Morning.	4 56	10 1		21		6 4	6 21	14 25	38	
8	M	Half Quarter	7 29 4	59 15 5	5	0 47	5 42	10 31		22		6 40	7 0	14 28	39	
9	Tu	Sirius Souths at 9h. 20m. P.M., 22 deg. high	7 27 5	0 14 46	46	1 51	6 32	11 7		23		7 24	7 52	14 30	40	
10	W	Q. Victoria m. 1840	7 25 5	2 14 27	27	2 53	7 24	11 52		24		8 25	9 4	14 31	41	
11	Th	The Sun Rises ESE and sets WSW.	7 24 5	4 14 7	7	3 53	8 19	Afternoon		25		9 47	10 24	14 32	42	
12	F	Capella Souths 7h. 36m. P.M.	7 22 5	6 13 48	48	4 46	9 16	1 49		26		11 8	11 48	14 31	43	
13	S	Rigel Souths 7h. 34m. P.M.	7 20 5	8 13 28	28	5 33	10 14	3 1		27			0 22	14 30	44	
14	S	QUINQUAGESIMA,	7 18 5	10 13 7	7	6 15	11 13	4 19		28		0 49	1 16	14 29	45	
15	M	SHROVE SUNDAY — <i>St. Valentine</i>	7 16 5	12 12 47	47	6 50	Afternoon	5 42		29		1 41	2 4	14 26	46	
16	Tu	Shrove Tuesday	7 14 5	14 12 26	26	7 23	1 7	7 4		1		2 27	2 52	14 23	47	
17	W	Ash Wednesday	7 12 5	16 12 5	5	7 52	2 3	8 27		2		3 13	3 36	14 19	48	
18	Th	Cambridge Term divides	7 10 5	18 11 44	44	8 23	2 58	9 47		3		3 57	4 20	14 14	49	
19	F	Sun enters Pisces	7 9 5	20 11 23	8 53	3 52	11 3			4		4 41	5 3	14 9	50	
20	S	α Orionis Souths, 7h. 34m. P.M.	7 7 5	21 11 2	2	9 26	4 45	Morning.		5		5 24	5 47	14 3	51	
21	S	QUADRAGESIMA,	7 5 5	23 10 40	40	10 1	5 39	0 16		6		6 9	6 30	13 56	52	
22	M	1st SUNDAY IN LENT	7 3 5	25 10 18	18	10 43	6 32	1 25		7		6 56	7 18	13 49	53	
23	Tu	Sirius Souths 8h. 27m. P.M.	7 1 5	27 9 57	57	11 29	7 23	2 25		8		7 49	8 20	13 41	54	
24	W	<i>St. Matthias</i>	6 59 5	29 9 34	34	Afternoon	8 14	3 17		9		9 3	9 45	13 32	55	
25	Th	Castor Souths at 9h. 4m. P.M. 71 deg. high	6 56 5	30 9 12	12	1 18	9 3	4 2		10		10 26	11 9	13 23	56	
26	F	Procyon Souths at 9h. 6m. P.M. 44 deg. high	6 54 5	32 8 50	50	2 8	9 50	4 42		11		11 49		13 13	57	
27	S	Pollux Souths at 9h. 7m. P.M. 67 deg. high	6 52 5	34 8 28	28	3 19	10 35	5 13		12		0 24	0 50	13 2	58	
28	S	2ND SUNDAY IN LENT	6 50 5	36 8 5	5	4 20	11 19	5 41				1 13	1 35	12 51	59	

The presence or absence of the Light of the Moon is shown by the Light or dark spaces, referring to each hour of the night. This enables the reader, at one glance, to see what hours are light, and what dark, in any given night, without reference to the actual times of the Moon rising or setting. The quantity of moonlight is known by referring to the column separating the morning from the evening hours; the numbers in which show "the Moon's Age."



## FEBRUARY.

The Moon during the night of the 1st and morning of the 2nd, is in the constellation of Sextans. On the 2nd and 3rd she is in Leo; on the 4th, at 1h. A.M., she is on the Equator, and moving S., being in Virgo, and directing her course towards Spica Virginis. During the 4th, 5th, and 6th, she is in Virgo; on the latter day, at 6h. A.M. she is 2° above Spica Virginis. On the 7th and 8th, she is in Libra; on the former day she does not rise at all; on the latter, she rises in the morning 13 minutes before 1, and enters her last quarter at 1h. 36m. P.M. On the 9th and 10th, she is in Ophiuchus; being N.W. of Antares on the former, and N.E. of it on the latter day, by several degrees. From the 11th to the 13th, she is in Aquila, and in Aquarius on the 14th and 15th. On the 14th, is new Moon at 11h. 26m. in the morning, but without an eclipse, as she is between 4° and 5° from the line joining the Sun and the Earth. From the 16th to the 18th, she is in Pisces; on the 19th, she is in Aries, and her crescent is seen soon after Sunset, in W. by N., directing her course towards Aldebaran, at some distance from her. On the 20th, she is in Aries. From the 21st to the 23rd she is in Taurus. On the 21st, she souths, at 5h. 39m. in the evening, the Pleiades being seen a few degrees above her; before the evening of the 22nd, she will have passed Aldebaran, and she will be a few degrees E. of that star, and moving from it. On the 23rd, she will cross the Milky Way. On the 24th and 25th she is in Gemini; on the latter day, at 9h. in the evening, Castor is seen about 16° above her, and she is moving so as to be under Pollux. On the 26th and 27th she is in Cancer, and on the 28th day she is in Leo—during the last three days she passes through a barren space in the heavens.

MERCURY.—Between the 1st and the 14th, will be in the constellation of Capricornus; from the 14th to the 25th, he will be in that of Aquarius; on the 25th, he passes into Pisces.

On the 1st, he rises at 7h. 29m. A.M., near the S.E. by E.; being only 12 minutes before the Sun rises; on the 7th, the Sun rises before him, and on the 10th, they pass the Meridian together, so that during the whole of the month he is under unfavourable circumstances for observation.

VENUS.—On the 1st, passes from the constellation Capricornus into that of Aquarius, and from the latter to that of Pisces on the 18th. On the 1st, she souths at 1h. 1m. P.M., at the altitude of 23°, and sets at 5h. 45m. P.M., near W.S.W.; on the 15th, she souths at 1h. 12m. P.M., at the altitude of 30°, and sets at 6h. 32m. P.M. near W. by S., and on the last day she souths at 1h. 21m. P.M., at the altitude of 36°, and sets at 7h. 14m. P.M., near W. by S.

On the 3rd, she is situated in a line joining the Pole Star, and Alpha Aquarii, produced to 13° from the latter star; and she is 5° W. of Saturn, towards which she is moving; and on the 7th, during the evening, both Venus and Saturn will be so near together as to be visible in the field of the telescope at the same time; Venus preceding Saturn by 1½ minute; and distant from him by only 1-6th of a degree, being below him by this small quantity; at 1h. on the following morning the two Planets will be within one minute of a degree of arc of each other, and after this time they will separate, Venus passing E. of Saturn, and above him; on the 8th, Venus will be about 2° E. and she is more and more East of him day by day. On the 16th, she will be about 6° S. of the Moon, and situated in the line joining the Pole Star; Beta Pegasi and Alpha Pegasi (the two latter stars forming the western side of the square of Pegasus) and about 23° south of Alpha Pegasi or the lower of these two stars; she will then move more east day by day, till towards the end of the month, she is in a line joining the Pole Star, and the eastern pair of stars forming the square of Pegasus, viz., Alpha Andromedæ and Gamma Pegasi, being about 30° S. of Alpha Andromedæ, the upper star, and about 16° S. of the lower one.

MAAS will be in the constellation of Sagittarius all the month. He will rise nearly midway between S.E. by E., and the S.E. points of the horizon; on the 1st day at 4h. 55m.; on the 15th, at 4h. 45m., and on the last day at 4h. 31m. A.M. He souths at 8h. 48m. A.M. on the 1st day; at 8h. 25m. A.M. on the last day; at an altitude of 15° throughout the month.

On February 1st, he is about 18° east of Antares, and moving eastward from this star; on the 20th and 21st days he is in a line drawn from the Pole Star through Alpha Lyre; and he is 34° E. of Antares, and distant from Alpha Aquile by 36°. On the 23rd and 24th days he is near to a cluster of stars in Sagittarius.

JUPITER will be in the constellation of Taurus throughout this month. He sets at the N.W. by W. point of the horizon, on the 1st day, at 3h. 37m. A.M.: on the last day at 1h. 58m. A.M. He souths at an altitude of 59° on the 1st day, at 7h. 34m. P.M.; and on the last day at 5h. 53m. P.M. He is nearly stationary among the stars during the 1st half, and he moves slowly to the eastward during the 2nd half of the month. His relative position with respect to Aldebaran and the Pleiades is the same as in the last month, but in the contrary order, the Planet being in nearly the same position at the end of February as he was at the beginning of January.

SATURN sets about 3° N. of the W.S.W. throughout the month. On the 1st day at 6h. 28m. P.M., being about 1b. 42m. after the Sun has set. The amount of

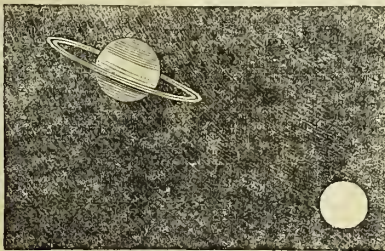
this difference decreases day by day, till on the 21st, the Planets and the Sun set together at 5h. 24m.; after this time the Sun rises before and sets after the Planet, till towards the end of the month they nearly rise together.

His motion among the stars is slowly eastward: during the first part of the month he is 25° distant from Alpha Pegasi, and 55° from Alpha Aquila. The month is a bad one for observing him.

On the 19th day, at 2h. 17m. P.M., he is N. of Mercury by only one-third of a degree, but the Sun sets so few minutes before the Planets that the two objects are unfavourably situated for observation.

URANUS souths at an altitude of 42°, on the 15th day, at 3h. 4m. P.M. and he sets nearly at the same point of the horizon as in January, on the 1st day at 10h. 21m. P.M., and on the last day at 8h. 40. P.M.

MERCURY ON THE 16TH. APPEARANCE OF SATURN AND VENUS ON FEB. 7TH.



The scale on which the Planets are drawn, is 40 seconds to an inch.

TIMES OF THE SOUTHING, &c., OF THE PRINCIPAL FIXED STARS, WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Star's Names.	Magnitude.	Time of southing during the evening of the 1st day.		Height in degrees above the horizon. S (South) N (North)	Setting.	
		H.	M.		Number of hours from southing.	Point of the horizon.
Alpha Arietis	3	5	13	61°s	8½	N.W. by W.
Alpha Ceti	2	6	9	42s	6½	Between W. and W. by N.
Alpha Persei	2	6	28	88s	Never Sets	W.N.W.
Aldebaran	1	7	42	55s	7½	Never Sets
Capella	1	8	20	84s	5½	Near W. by S.
Rigel	1	8	22	30s	8½	W. by N.
Beta Tauri	2	8	31	67s	6½	Near W.S.W.
Alpha Orionis	1	9	0	46s	9	Near N.W.
Sirius	1	9	52	22s	9	Near W. by N.
Castor	3	10	38	71s	6½	Near N.W.
Procyon	1	10	45	44s	9	Near N.W.
Pollux	2	10	50	67s	9	Near N.W.

POSITION OF THE CONSTELLATIONS RISING, ON THE MERIDIAN, AND SETTING ON THE 1ST. DAY AT 10H. P.M.

Constellations Rising.	Constellations on the Meridian	Constellations Setting.
The legs of Hercules in N. by E. to N.N.E.	The body of Draco from 20° to 30° above the N. horizon	The neck of Cygnus, midway between N. by W. and N.N.W.
Corona Borealis in N.E.	Polaris	The hoofs of Pegasus near N.N.W.
The knees of Boötis in E.N.E.	The head of Camelopardalus, between Polaris and the Zenith	The N. wing of Pegasus N.W. by W.
The shoulders of Virgo in E. by N.	The head and neck of the Lynx near the Zenith	The body of Cetus, W.S.W. Columbia, S. by W.
The Crater E.S.E.	Neck and chest of Monoceros, 38° above S. horizon	
	Canis Major, 25° above S. horizon	

The constellations occupy the same positions on January 1st at midnight, and on March 1d. at 8h. P.M.

Days of the Month.	JUPITER'S SATELLITES.				OCCULTATIONS OF STARS BY THE MOON.					
	Length of Day, or number of hours between Sunrise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Day-break, or beginning of Twilight.	Time of Twilight ending.	Eclipses of		Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
					1st. Sat.	2nd. Sat.				
					Emersion.	Emersion.				
1	H. M.	H. M.	H. M.	H. M.	D. H. M.	D. H. M.	u Geminorum	5	D. H. M.	Dark
6	9 6	1 21	5 43A.M	6 45PM	2 11 0 P. M.	1 8 18 P. M.			24 9 46 P. M.	
11	9 24	1 39	5 37 „	6 51 „	10 0 56 A. M.	8 10 54 P. M.	k Geminorum	5	10 46 P. M.	Bright
16	10 0	2 15	5 29 „	6 69 „	11 7 25 P. M.	16 1 30 A. M.				
21	10 13	2 33	5 20 „	7 8 „	18 9 21 P. M.				25 9 39 P. M.	Dark
26	10 38	2 53	5 11 „	7 17 „	25 11 17 P. M.				10 51 P. M.	
28	10 46	3 1	4 56 „	7 10 „						

February 1d. after 8h. P.M. the four Satellites of Jupiter are E., and they are W. of the Planet on the 21st. day at 8b. P.M., and for some time afterwards.

## TIMES OF CHANGES OF THE MOON,

And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	LAST QUARTER	NEW MOON	FIRST QUARTER	APOGEE	PERIGEE
1	20h. 16m	6 20 51	11 21 25	16 22 0	22 23 10
2	21° 37'	19 47 22	17 21 22	14 19 22	6 33 23
3	21h. 45m	15° 7'	17 41 33	10 41 23	3 19 18
4	17h. 32m	13 0 17	18 3 23	8 20 18	23 30 4
5	23° 28'	23 39 4	20 55 22	4 21 21	21 10 22
6	22h. 14m	12 29 0	20 58 22	1 22 20	11 30 0
7	12° 34'	0h. 42m	12 9 43	11 56 0	11 43 0
8	3° 48'	0 43 3	12 9 43	11 56 0	11 43 0
9	3° 58'	0 44 4	12 9 43	11 56 0	11 43 0
10	4° 8'	0 45 4	12 9 43	11 56 0	11 43 0
11	4° 14'	0 46 4	12 9 43	11 56 0	11 43 0

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	20h. 16m	21° 37'	21h. 45m	15° 7'	17h. 32m	23° 28'	4h. 19m	20° 53'	22h. 14m	12° 34'	0h. 42m	3° 48'
2	6 20 51	19 47 22	9 13 0	17 41 33	13 0 17	23 39 4	4 20	20 55 22	12 29 0	0 43 3	0 44 4	3 58'
3	11 21 25	17 21 22	10 41 33	18 3 23	14 19 22	23 46 4	4 21	21 10 22	12 9 43	0 45 4	0 46 4	4 8'
4	16 22 0	14 19 22	15 52 18	18 34 23	16 22 0	23 46 4	4 22	21 10 22	12 9 43	0 46 4	0 47 4	5 8'
5	22 23 10	6 33 23	3 19 18	23 30 4	23 30 4	23 30 4	4 24	21 10 22	12 9 43	0 47 4	0 48 4	6 8'



## February Anniversary.



ESCAPE OF MARY QUEEN OF SCOTS FROM LOCHLEVEN CASTLE.

## DEATH OF MARY QUEEN OF SCOTS.

FEBRUARY 8, 1587, Mary was beheaded for alleged conspiracy, in Fotheringhay Castle, in the 45th year of her age.

Every phase in the life of this ill-fated sovereign is regarded with interest, and her entire career would seem to belong to the romance of history. Neither of its strange events, however, surpasses the escape of the imprisoned Queen from the Castle of Lochleven, an ancient fortress situate on a small island at the north-west end of the lake, in Kinross-shire, Scotland. It was once the property of the Douglasses of Lochleven, but is now a heap of ruins. Thence Mary escaped on the 2nd of May, 1568.

It appears that the marriage of Queen Mary with Bothwell raised the public indignation to such a pitch, that the nobles rose against them, and they fled before an armed and indignant people from fortress to fortress. At length, after they had collected some followers, a pitched battle near Carberry Hill was about to ensue, when Mary abandoned Bothwell, and threw herself on the mercy of her subjects. They conducted her first to Edinburgh, where, as she still persisted in regarding Bothwell as her husband, the nobles resolved that she should be confined during her life in the fortress of Lochleven. She was in a paroxysm of distress when Lords Ruthven and Lindsey arrived at the Palace of Holyrood to inform her that they were commanded to put in execution the order for her commitment. They charged her women to take from her all her ornaments and royal attire; and, being clothed in a mean dress, she was conveyed to the prison appointed for her. The Lords Seton, Yester, and Borthwick endeavoured to rescue her, but failed in the attempt. She was delivered over to William Douglas, the Governor of the Castle of Lochleven, who was nearly related to the Regent Morton. Here, however, Mary continued a prisoner less than twelve months, when she effected her escape by the aid of the Governor's brother, George Douglas, who had become enamoured of her. On May 2, in the year above named, when her keeper was at supper with his family, George Douglas having possessed himself of the keys of the Castle, hastened to the Queen's apartment, and conducted her out of prison. Having locked the Castle gates, they entered a boat which awaited them, and being rowed across the lake, the Lord Seton received the Queen with a chosen band of horsemen in complete armour. That night he conveyed her to his house of Niddrie, in West Lothian; having rested there a few hours, she set out for Hamilton, and was soon at the head of an gallant army.

Mary Stuart, famous for her beauty, her wit, her learning, and her misfortunes, was daughter of James V. King of Scotland, and succeeded her father in 1542, eight days after her birth. In 1558 she married François, dauphin, and afterwards King of France, by which means she became Queen of France. This monarch dying in 1560, she returned into Scotland, and married her cousin, Henry Stuart, Lord Darnley, in 1565. Being excluded from any share of the Government (as he suspected) by the advice of Rizzio, an Italian musician, her favourite and secretary, the King, by the counsel and assistance of some of the principal nobility, suddenly surprised them together, and Rizzio was slain, in the Queen's presence, in 1566. An apparent reconciliation afterwards took place, when Darnley, who had continued to reside separately from the Queen, was assassinated, and the house he had inhabited was blown up with gunpowder, in February, 1567. This barbarous transaction was but very imperfectly investigated; and in the month of May following, she wedded the Earl of Bothwell, who was openly accused as the murderer of the late King. Scotland soon became a scene of confusion and civil discord. Bothwell, took refuge in Denmark; and Mary, made a captive, was treated with insult and contempt. After some months' confinement she effected her escape, and, assisted by the few friends who still remained attached to her, made an effort for the recovery of her power. She was opposed by the Earl of Murray, the natural son of James V., who had obtained the Regency in the minority of her son. The battle of Langside ensured the triumph of her enemies; and, to avoid again falling into their power, she fled to England, and sought the protection of Queen Elizabeth; but that Princess treated her as a personal and political rival, and kept her in safe custody for a period of eighteen years. And during the whole of that long term she was considered as the head of the Popish party, who wished to see a Princess of their persuasion on the throne of England. Mary, despairing of recovering that of Scotland, most assuredly became a dupe to this party, and contented, if she was not directly concerned in, their plots. She was accordingly tried for a conspiracy against the life of the Queen of England, condemned, and suffered decapitation. Her body was interred with great pomp, in Peterborough Cathedral, but subsequently removed by her son, James I., to Henry the Seventh's Chapel, Westminster-Abbey, where a magnificent monument was erected to her memory. The character and conduct of Mary, Queen of Scots, have been made the subject of much controversy; but the fact of her marrying Bothwell, "stained as he was by universal suspicion of Darnley's murder, is a spot upon her character for which we in vain seek an apology."



## FEBRUARY.

FEBRUARY is generally considered the first month of the spring. As the snow melts gradually away, snowdrops appear abundantly, and hence this delicate little flower was formerly called the fair maid of February. It was also called our lady of February, as it was generally in flower on the 2nd of the month, the festival of the Purification of the Virgin, or Candlemas Day. This day, in many parts of Great Britain, particularly in Scotland, is supposed to have great effect upon the weather.

If Candlemas Day be fair and bright,  
Winter will have another flight;  
But if Candlemas Day be clouds and rain,  
Winter is gone, and won't come again.

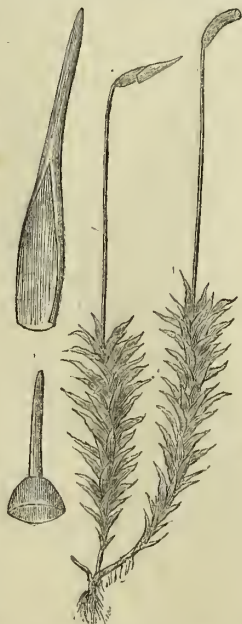
Towards the middle of February the cloth-of-gold crocus appears, with its petals of a deep golden yellow, which are striped with very dark reddish brown on the outside. The bulb, or rather corm, of this species is very large, and covered with strongly-marked network. The leaves of various bulbous plants now begin to appear above the ground, and the pink hepatica and the mezezon are generally in flower. Both flowers are worth remarking; the hepatica because its flowers are of as dark and rich a colour in the bud as they are when they are fully expanded; and the mezezon because the petals of its flowers are each furnished with a lining, which may be carefully peeled off, and which, when separated, looks as if two flowers had been glued together. The flowers of the latter plant appear clustered together on the naked part of the branches, while the leaves, when they unfold, are produced in tufts at their points. The bark of the mezezon is extremely tough, and the inner bark is capable of being distended, so as to form a kind of lace. The curious lace-bark tree of Jamaica is nearly allied to the mezezon, but its bark is still more beautiful, and is, indeed, so fine, that ruffles, a frill, and a cravat were cut from it and worn by Charles II. The catkins of the hazel generally appear in this month, though the female flowers, which are of a bright crimson, are seldom seen before March. The buds of the different kinds of trees begin to swell at this season, and it is curious to mark how diversified they are in appearance; some being short and thick, like those of the horse-chestnut and the lilac; and others long and tapering, like those of the *Euonymus*, or spindle tree. On the 22nd of the month (St. Margaret's Day), the daisy is generally in flower, and hence the plant was formerly called Herb Margaret. It is still called *La Marguerite* in France, though it is also sometimes called *La Payerette* in that country, from its being most abundant about Easter, the French word for which is *pagues*. The name of daisy is said to have been, originally, day's eye. The green hellebore, which dies down to the ground in winter, springs up again in February, and flowers almost as soon as it appears above ground. The creeping crowfoot is often in flower at this season. In ancient times, the holly and mistletoe used to deck the houses at Christmas, were suffered to remain till the 1st of February, when they were removed, and their place supplied with box.

The curious cupped moss, called the Jew's-ear, is very abundant about this period. Though it is called a moss, it is, in fact, a kind of fungus which grows on old wood, generally the trunks of elder trees, which are partially decayed. There are two kinds, one of which is of a reddish brown, and the other a dingy black. The crab's-eye lichen (*Lecanora parella*) is found at this season on exposed rocks and stones, and sometimes on walls and stones by the sea-side. The thallus, or leafy part, is of a dirty white, and forms conspicuous roundish patches, closely adhering to the stones on which they grow. It is used for dyeing crimson or purple in the south of France. Cudbear (*L. tartarea*), is another crustaceous lichen, very similar to the last in form, but differing both in size and colour, being larger, and of a brownish hue. In the Highlands of Scotland, many peasants earn fourteen shillings per week by scraping this lichen off the rocks with an iron hoop, and sending it to the Glasgow market, where it is used for dyeing wool purple. The scale mosses (*Jungmannia*), and the hair moss (*Polytrichum*) are both in fructification about this period. One of the commonest kinds of scale moss (*Jungmannia bidentata*) is found in fructification at this season: it grows in patches, in moist shady situations,



SCALE MOSS.

near the roots of trees, and among moss upon commons, and on hedge banks. The seed vessels are little oval bodies, which, if gathered when unexpanded, and brought into a warm room, burst under the eye with violence the moment a drop of water is applied to them, the valves of the vessel taking the shape of a cross, and the seeds distending in a cloud of brown dust. If this dust be examined in a microscope, a number of curious little chains, looking something like the spring of a watch, will be found among it, their use being to scatter the seeds; and if the seed-vessel be examined in a microscope while in the act of bursting, these little springs will be found twisting and writhing about like a nest of serpents. The undulated hair moss (*Polytrichum undulatum*) is found on moist shady banks, and in woods and thickets. The seed-vessel has a curious shaggy cap, but in its construction it is very similar to that of the screw moss, except that the fringe round its opening is not twisted. There are also several kind of tremella found on partially decayed wood at this season; and several curious fungi, which appear sometimes in patches of white or yellowish matter, and sometimes of a brilliant blue or purple. The curious plant called the ground *Spharocarpus* is only found at this season growing on the ground in clover and turnip fields, generally in Norfolk and Suffolk. It consists of a number of pear-

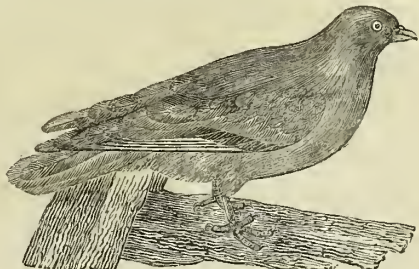


UNDULATED HAIR MOSS.

shaped substances, growing in clusters on a very thin membranous leaf. The whole plant is of a bright yellowish green; and, when the pear-like bodies are opened, a round ball is found at the base of each.

Many birds pair in February; but the earliest are generally the rooks, which sometimes begin to build on Candlemas Day (Feb. 2nd). The ravens are nearly as early; and White of Selborne relates an interesting anecdote of a female raven, which happened in this month. "In the centre of a grove near Selborne, there stood an oak, which, though shapely and tall on the whole, bulged out into a large excrescence about the middle of the stem. On this a pair of ravens had fixed their residence for such a series of years, that the oak was distinguished by the title of the Raven Tree. Many were the attempts of the neighbouring youths to get at this eyrie: the difficulty whetted their inclinations, and each was ambitious of surmounting the arduous task. But when they arrived at the swelling, it jutted out so in their way, and was so far beyond their grasp, that the most daring lads were awed, and acknowledged the undertaking to be too hazardous. So the ravens built on, nest upon nest, in perfect security, till the fatal day arrived in which the wood was to be levelled. The saw was applied to the butt, the wedges were inserted into the opening, the woods echoed to the heavy blows of the beetle or mallet, the tree nodded to its fall; but still the dam sat on. At last, when it gave way, the bird was flung from her nest; and, though her parental affection deserved a better fate, was whipped down by the twigs, which brought her dead to the ground."

The blue titmouse, or tomtit, may be seen busily at work in the month of February pecking off the trees all those buds which are infested with insects, as the bird is one of those which require animal food; and, in severe frosts, it may often be seen near dwellings searching for bits of meat or bones which may have been thrown out by the cook. The nuthatch and the woodpecker are birds having similar habits, and they may often be seen in February pecking insects out of the lichens, with which the branches are covered. Blackbirds frequently begin to build in this month; and towards its close are heard the songs of thrushes, woodlarks, sparrows, wrens, and many other birds. In marshy places, the two harsh sharp notes of the marsh titmouse are heard about this season; and the stone curlews are heard to pipe. They are supposed to be the first migrating birds that return in spring. The bullfinch is frequently seen very busily employed in pecking at the swelling buds of the early trees and shrubs. "The bullfinch," says Mr. Knapp, "is gifted with no voice to charm us; it communicates no harmony to the grove: all we hear from it is a low and plaintive call to its fellows in the hedge. It has no familiarity or association with us, but lives in retirement in some lonely thicket ten months in the year. At length, as spring approaches, it will visit our gardens, an insidious plunderer. Its delight is in the embryo blossoms wrapped up at this season in the bud of a tree: and it is very daring and curious in its choice of this food, seldom feeding upon two kinds at the same time. It generally commences with the germs of our larger and most early gooseberries; and the bright red breasts of four or five cock birds, quietly feeding on the leafless bush, are a very pretty sight, but the consequences are ruinous to the crop. When the cherry buds begin to come forward, the bullfinch quits the gooseberry bushes, and makes tremendous havoc with the cherry trees. The Orleans and green-gage plums form the next treat, and draw the bullfinch's attention from what remains of the cherry. Having banquetted here awhile, it leaves our gardens entirely, resorting to the fields and hedges, where the sloe bush in April furnishes it with food. May brings other dauntments and other avocations."



THE WOOD PIGEON.

Wood pigeons are frequently seen towards the close of this month. The wood pigeon is indigenous to this country, and it is doubtful whether it migrates farther than from the northern to the southern parts. These birds assemble in large flocks in winter; and they resort to the woods, in order to roost in the highest trees, preferring those of the ash. They begin to pair generally in the month of February, "at which time the male birds are seen flying in a singular manner, alternately rising and falling in the air." The nest of the wood pigeon is formed of a few small sticks, so loosely put together, that the eggs may frequently be seen through them. The female lays only two, and they are white and oval; but larger than those of the common pigeon. Both the male and female birds assist in making the nest; and the male sometimes relieves the female in sitting. The nest is frequently built in pine or fir trees; but it is also found in hedges, or in large hawthorn bushes. The most common situation is, however, in ivy, or in the fork of a large tree.

Various kinds of caterpillars are found in the month of February; as, by a curious and beautiful provision of nature, insects come into existence just at the moment when the leaves of plants unfold so as to afford them food. Butterflies, that appear to have found some place of shelter all the winter, often appear on a warm day in February, fluttering about, and laying their eggs on the leaves of the plants destined to afford food to their caterpillars, before the leaves themselves are quite expanded; and in this way the eggs of the nettle, peacock, and painted lady butterflies, and sometimes even those of the tiger moth, are found on the young leaves of the nettle when the plants are only a few inches high. A few of the common flies sometimes appear at the end of this month; and the bat begins to fly. The woodlouse (*Oniscus asellus*) often makes its appearance towards the close of this month. This creature belongs to the Crustaceae, and it possesses the same power of curling up its body as the lobster does its tail. Woodlice always frequent dark and retired places; they are generally found under stones, or old logs of wood; and if a flower-pot chances to be turned down it is sure to be soon filled with woodlice. The food of these creatures consists of decayed vegetable and animal substances, and they are very fond of burying themselves in fruit somewhat over ripe. They generally crawl about at night, and are rarely seen in the day-time excepting in wet weather; and they coil themselves up when in danger. The young, when first hatched, are nearly white, and have only twelve feet; though, when the creature is full grown, it is brown, and has fourteen feet.





NATIONAL SPORT, IRELAND—  
FOX HUNT.

M D	W D	ANNIVERSARIES, OCCU- RENCES, FESTIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT.				HIGH WATER At LONDON BRIDGE				EQUA- TION OF TIME. Add.	Day of the Year.
			Rises.	SETS.	DECLI- NATION SOUTH.	Rises Afternoon	Souths.	SETS. Morning	Before Sunrise.			After Sunset.			Morning.	Afternoon				
									O'Clock 2h. 4h. 5h.	Moon Age.	After Sunset. O'Clock 7h 8h. 10h.	O'Clock 7h 8h. 10h.								
1	M	<i>St. David</i>	6 48	5 38	7 42	5 23	Morning	6 7				13				1 55	2 14	12 40	60	
2	Tu	Aldebaran Souths, 5h. 47m. P.M.	6 46	5 39	7 19	6 25		0 2	6 31				15				2 30	2 46	12 28	61
3	W	The Sun Rises in the E. by S. and Sets W. by S.	6 44	5 41	6 57	7 29	0 45	6 54				15				3 3	3 18	12 15	62	
4	Th		6 42	5 43	6 34	8 31	1 27	7 17				16				3 32	3 46	12 2	63	
5	F	Orion's Souths 6h. 56m. P.M., 46 deg. high	6 40	5 44	6 10	9 34	2 10	7 40				17				4 0	4 17	11 48	64	
6	S	Sirius souths 7h. 43m. P.M.	6 38	5 46	5 47	10 38	2 53	8 4				18				4 32	4 45	11 34	65	
7	S	3RD SUNDAY IN LENT	6 36	5 48	5 24	11 40	3 39	8 34				19				5 0	5 16	11 20	66	
8	M		6 33	5 50	5 1	Morning.	4 26	9 7				20				5 33	5 48	11 5	67	
9	Tu	Pollux souths 8h. 29m. P.M.	6 31	5 51	4 37		0 42	5 16	9 47				21				6 10	6 29	10 50	68
10	W	Regulus South's 10h. 47m. P.M. 51 deg. high	6 28	5 53	4 15	1 41	6 8	10 35				21				6 54	7 17	10 35	69	
11	Th	Mercury sets 7h. 43m. P.M.	6 26	5 55	3 50	2 35	7 2	11 31				23				7 49	8 26	10 19	70	
12	F	<i>St. Gregory</i>	6 24	5 57	3 27	3 23	7 58	Afternoon				24				9 8	9 52	10 3	71	
13	S	Venus sets 7h. 54m. P.M.	6 21	5 59	3 3	4 7	8 55		1 50				25				10 35	11 18	9 46	72
14	S	4TH SUNDAY IN LENT	6 18	6 0	2 40	4 44	9 51	3 9				26				11 55		9 30	73	
15	M		6 16	6 2	2 16	5 17	10 48	4 31				27				0 26	0 54	9 13	74	
16	Tu	Mars rises 4h. 10m. A.M.	6 13	6 4	1 52	5 48	11 44	5 53				27				1 19	1 43	8 56	75	
17	W	<i>St. Patrick</i>	6 11	6 6	1 28	6 18	Afternoon	7 15				1				2 8	2 28	8 38	76	
18	Th	Mercury sets at 7h. 54m. P.M., 3 deg. N. of W. by N.	6 9	6 8	1 5	6 49		1 36	8 37				2				2 51	3 13	8 21	77
19	F		6 7	6 9	0 41	7 22	2 32	9 54				3				3 35	3 57	8 3	78	
20	S	The Sun rises nearly E. and sets W.	6 5	6 11	0 17	7 58	3 28	11 7				4				4 19	4 40	7 45	79	
21	S	5TH SUNDAY IN LENT— <i>St. Benedict</i> —Ver- nal Equinox—Spring com.	6 3	6 12	North	8 38	4 23	Morning				5				5 0	5 20	7 27	80	
22	M	Sirius Souths 6h. 35m. P.M., 22 deg. high	6 1	6 14	0 30	9 24	5 17		0 13				6				5 45	6 6	7 9	81
23	Tu		5 59	6 15	0 54	10 16	6 9	1 10				7				6 30	6 55	6 51	82	
24	W	Sun in Aries	5 57	6 17	1 17	11 11	6 59	2 0				8				7 20	7 50	6 32	83	
25	Th	<i>Annunciation</i>	5 54	6 18	1 41	Afternoon	7 47	2 41				9				8 29	9 10	6 14	84	
26	F	Camb. Term ends	5 52	6 20	2 4		1 11	8 33	3 15				10				9 53	10 34	5 55	85
27	S	Oxford Term ends	5 50	6 22	2 28	2 14	9 18	3 45				11				11 15	11 48	5 37	86	
28	S	PALM SUNDAY—	5 47	6 24	2 51	3 14	10 1	4 12				12					0 22	5 18	87	
29	M	1st Day in Passion Week	5 45	6 26	3 15	4 17	10 43	4 35				13				0 45	1 7	4 59	88	
30	Tu	Castor souths at 6h. 54m. P.M.	5 43	6 28	3 38	5 19	11 25	5 0				14				1 27	1 44	4 41	89	
31	W	Procyon Souths 6h. 57m. P.M., 44 deg. high	5 41	6 30	4 1	6 22	After- Midnight	5 20				15				1 59	2 15	4 22	90	



## MARCH.

THE Moon from the 1st to the 7th, rises during the evenings. On the 1st, she is in Sextans. On the 2nd, she is full at 9 minutes after 3 in the morning, but, without an eclipse, as she is then nearly 3 degrees from the line joining the Sun and Earth produced. In the evening she is in Leo. On the 3d, at 7h. a.m. she is in Virgo, on the Equator, and moving S., directing her course towards Spica Virginis, which star she does not pass till noon on the 5th, her course lying 3° above the star; and during the night of the 5th, she will be some degrees E. of that star. On the 7th and 8th, she is in Libra; on the latter day she does not rise. On the 9th, she rises early in the morning, and she is in Ophiuchus, her course lying towards a point 9° above Antares, which she passes at 5h. in the morning of the 10th, near which time she enters her last quarter. On the 11th and 12th, she is in Aquila; from the 13th, to the 15th, in Aquarius. On the 16th, at 9h. p.m. is New Moon, but without an eclipse, as she is then nearly 2 degrees from the line joining the Sun and the Earth. On the 19th, we shall see her crescent in the west, after Sunset, a considerable distance west of the Pleiades and Aldebaran, and her course is directed towards the latter. On the 19th and 20th, she is in Aries; on the 21st, from 8h. to 9h. in the evening she will be near Aldebaran, being about one degree below the star. On the 22nd, still in Taurus, and moving towards the Milky Way, which she will have just passed before rising on the 23rd. On the 23rd, at 5h. 40m., in the evening, she enters her 3rd quarter. On the 24th and 25th she is in Gemini, her course lying evidently several degrees S. of Castor and Pollux. On the 26th, she is in Cancer. From the 27th, to the 29th, she is in Leo, and in Virgo afterwards till the end of the month. On the 31st, at 9h. 17m. in the evening is Full Moon, when her distance from the line joining the Sun and Earth is less than a degree, and a visible eclipse of the Moon takes place. (See the month of April in the Almanack of last year).

The Eclipse begins at twenty-three minutes after eight in the evening. The middle is at twenty-seven minutes after nine, and the end is at half-past ten. At London about one-third of the Sun's diameter is eclipsed.

MERCURY will be in the constellation Pisces during the whole of this month.

He souths at 0h. 55m. p.m., at the altitude of 34°, and sets at 6h. 40m. p.m., midway between the W. and W. by S. points of the horizon; on the 16th, he souths at 1h. 11m. p.m. at the altitude of 46°; and he sets at 7h. 54m. p.m., near W. by N., being 1h. 50m. after the Sun has set; after the 16th, the Planet sets earlier, and the Sun later, and therefore, between the days of the 6th and the 20th, the time is very favourable for observing him. On the 21st, he souths at 0h. 58m. p.m., and sets at 7h. 48m. p.m. On the 26th, he souths at 0h. 32m. p.m., and sets at 7h. 22m. p.m. in the W. by N. On the 31st, the Sun and the Planet south at the same time. On the 6th, the Planet is in a line joining Alpha Andromedæ and Gamma Pegasi (the two eastern stars in the square of Pegasus) produced to 14° south of the latter star; on the 13th he is in a line joining Beta and Gamma Pegasi, produced and distant 12° from the latter; on the 20th he is 13° E. S. E. of Gamma Pegasi.

VENUS, on the 5th, will pass from the constellation Pisces into that of Cetus; and from the latter into Aries, on the 27th.

On the 1st she souths at 1h. 21m. p.m. at the altitude of 37°; and sets at 7h. 17m. p.m. near the W. point of the horizon. On the 15th, she souths at 1h. 29m. p.m., at the altitude of 44°; and sets at 8h. 1m. p.m., W. by N. On the last day she souths at 1h. 39m. p.m. at the altitude of 52°; and sets at 8h. 53m. p.m. in the W. N. W.

On the 1st, she will be situated nearly as described at the last day of February, and after this time she will be moving towards Alpha Arietis; on the 15th she, with Gamma Pegasi and Alpha Arietis, form a triangle, being at the distance of 22° from both stars, and below the line joining them. On the 28th, she is situated in a line joining the Pole Star, and Alpha Arietis, and at the distance of 11° south of the latter star.

On the 12th and 13th, she is very near Uranus; during the evening of the former day she will precede him by 2 minutes, and is nearly  $\frac{1}{2}$  a degree S. of him. During the evening of the 13th, she follows Uranus by 2 minutes, and both will appear in the field of view of the telescope at the same time, providing the magnifying power of the telescope is not great. Venus is exactly E. of Uranus, and, therefore, both objects will pass over the same part of the field, Uranus preceding Venus by two minutes. To those persons who have not seen Uranus, this will be a good opportunity of so doing, as it is seldom so good a guide can be given for finding him.

MARS will be in the constellation of Sagittarius before the 21st, and in that of Capricornus after that time. He rises near the S.E. by E. all the month; on the 1st at 4h. 30m.; on the 15th at 4h. 11m.; and on the last day at 3h. 40m. A.M. He souths on the 1st, at 8h. 24m., and on the last day at 7h. 56m. A.M. at an altitude of 15° at the beginning and of 18° at the end of the month.

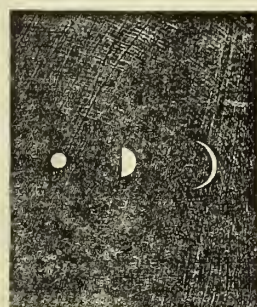
On the 1st, he with Alpha Ophiuchi and Alpha Aquilæ form a triangle, the Planet occupying the lower angle, distant from Alpha Ophiuchi by 43°, and from Alpha Aquilæ by 33°; on the 14th, 15th, and 17th, the planet is situated in the lines drawn from the Pole Star, through Gamma Aquilæ; Alpha Aquilæ and Beta Aquilæ respectively at the distance of 33° south of the 1st star; of 31° from the 2nd, and of 28° from the last, these three stars being those characteristic of the constellation Aquila. On the 24th he is situated in a line from the Pole Star, passing midway between Alpha Aquilæ, and that remarkable group of stars called Delphinus, following Alpha Aquilæ, and at about 30° distance from this star. He is also situated on this day in the line joining the Pole Star and Alpha Capricorni, continued 8° from the latter star.

ECLIPSE OF MOON ON THE 31ST.



MERCURY ON

1st 11th 25th



JUPITER will be in the constellation of Taurus throughout the month; and he will set at the N.W. by N. part of the horizon during that time; on the 1st at 1h. 55m. A.M.; on the last day at 0h. 17m. A.M. He souths at an altitude of 59° every day; on the 1st, at 5h. 50m. p.m.; on the last, at 4h. 8m. p.m.

His motion throughout the month is slowly towards the east; on the 1st day he is about 5° N. of Aldebaran, and towards the end of the month he is about 8° N.N.E. of that star, in a line joining it, and Beta Aurigæ; he is also about 15° east of the Pleiades.

SATURN rises about 4° N. of E.S.E. all the month; on the 1st, at 6h. 47m. A.M. and on the last, at 4h. 56m. A.M. On the same days he souths at 1h. 52m. A.M., and at 10h. 7m. A.M. respectively. He is moving slowly to the east, among the stars. At about the middle of the month he is at the distance of 25° S.S.W. of Alpha Pegasi; 33° S.W. of Gamma Pegasi (the two southern stars in the square of Pegasus) and 21° N. of Fomalhaut. This month is a bad one for observing him.

URANUS souths at an altitude of 43° on every day; on the 15th at 1h. 19m. p.m. He sets at 3rd south of W. by N.; on the 1st, at 8h. 37m. p.m.; and on the last day at 6h. 49m. p.m.

## POSITION OF THE CONSTELLATIONS RISING ON THE MERIDIAN, AND SETTING ON THE 1st. DAY AT 10m. P.M.

Constellations Rising.	Constellations on the Meridian	Constellations Setting.
Lyra in N.N.E.	The tail of Cygnus, 6° above N. horizon	The N. fish of Pisces in N.W.
The shoulders of Hercules in N.E. by E.	The knee of Cepheus, 35° above N. horizon	The fore-legs of Aries in W. by N.
The head of Serpens in E. by N.	Polaris	The head of Cetus in W.
The feet of Virgo in E.	The head and fore-legs of Ursa Major, between Polaris and the Zenith	The fore-legs of Lepus in S. W.
The feet of Corvus in S.E. by E.	The tail of the Lynx, near the Zenith	The hind-legs of Canis Major in S.S.W.
A part of Hydra in S.E.	The claws of Cancer, 50° above S. horizon	
	The head of Hydra, 45° above S. horizon	

Days of the Month.	Length of Day, or number of hours between sunrise and sunset.	Number of Hours and Minutes the day has increased since the Shortest Day.	Time of Day break, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.										OCCULTATIONS OF STARS BY THE MOON.									
					Eclipses of										Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.						
					1st. Sat.					2nd. Sat.														
					Emersion.					Emersion.														
1	H. M. 10 50	H. M. 3 5	H. M. 4 54A.M.	H. M. 7 32P.M.	D. H. M. 6 7 42 P. M.	n. h. m. 5 8 0 P. M.	Zeta 3 Libræ	6	{ 8 0 40 A. M. 1 26 "	Bright Dark														
6	11 8	3 23	4 43 "	7 41 "	13 9 37 "	12 10 35 "																		
11	11 29	3 44	4 32 "	7 49 "	20 11 33 "																			
16	11 51	4 6	4 20 "	7 57 "	29 7 58 "	3rd. Sat.		115 Tauri	5	{ 22 6 33 P. M. 7 41 "	Dark Bright													
21	12 9	4 24	4 7 "	8 8 "	1 9 34 P. M. Immersion		} Lambda Geminorum					5	{ 24 8 46 P. M. 9 33 "	Dark Bright										
26	12 28	4 43	3 54 "	8 18 "	2 0 7 A. M. Emersion			} Alpha 2 Cancri	6	{ 6 7 41 P. M. 9 2 "	Dark Bright													
31	12 49	5 4	3 41 "	8 30 "																				

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.													
Day of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		
	Right Ascension	Declination	Right Ascension	Declination	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.	
FULL MOON	23h. 30m.	3° 53's.	23h 56m	1° 46s	18h. 59m	23° 20'	4h. 25m	21° 13'	22h. 26m	11h. 22m	0h. 46m	4h 17m	
LAST QUARTER	6 0 1	0 33N.	0 18	0 49N.	19 14	23 1	4 27	21 18	22 29	11 9	0 47	4 24	
NEW MOON	10 28	4 36	0 41	3 24	19 29	22 36	4 30	21 25	22 31	10 57	0 48	4 30	
FIRST QUARTER	16 0 45	7 36	1 3	5 58	19 45	22 6	4 32	21 31	22 33	10 44	0 49	4 36	
FULL MOON	21 0 52	9 4	1 26	8 28	20 0	21 30	4 35	21 38	22 36	10 32	0 50	4 43	
APOGEE	26 0 47	8 46	1 49	10 53	20 15	20 50	4 38	21 45	22 38	10 19	0 51	4 50	
PERIGEE	16 0	16 0	0	0	0	0	0	0	0	0	0	0	
APOGEE	29 6	29 6	6	6	6	6	6	6	6	6	6	6	



## March Anniversary.



CROWNING OF BRUCE.

## THE CROWNING OF BRUCE.

27TH MARCH, 1306.

THE Earl of Gloucester, a kinsman of Bruce, had notice of his friend's danger, and anxious to save him, yet afraid in so serious a matter, too rashly to compromise his own safety, sent him a piece of money and a pair of golden spurs. Bruce understood the counsel thus symbolically communicated, and instantly set out for Scotland, accompanied by his Secretary and a single attendant. He is said to have reached Lochmaben Castle on the fifth day after his departure from London, and thence repairing to Dumfries, where Comyn was, he sought a private interview with him. From some inward misgiving, no doubt on the part of Comyn, the meeting took place in the convent of the Minorite friars. Here Bruce passionately reproached Comyn for his treachery, and after some altercation drew his dagger and stabbed him to the heart. Immediately hastening from the spot he called for his attendants, who seeing him pale and agitated inquired the cause. "I doubt I have slain Comyn," was the reply. "You doubt," cried Kirkpatrick, fiercely, "I'se mak' sicker," and rushing towards Comyn, despatched him on the spot. Almost at the same moment Sir Robert Comyn, the uncle, who came into the convent on the noise of the scuffle, shared a similar fate. The alarm soon became general, and the English judges, then holding a court in a hall of the Castle, not knowing the extent of the danger, hastily barricaded the doors. Bruce, assembling his followers, surrounded the Castle, and, threatening to force their entrance by fire, compelled those within to surrender. He soon afterwards proceeded to Scone, the ancient seat of Scottish inauguration, and was there crowned King of Scots, on the 27th March, 1306. Edward had carried the *regalia* to Westminster, but their place was soon supplied. The Bishop of Glasgow furnished from his own stores the robes in which Bruce was arrayed; and a slight coronet of gold being got from the nearest artist, the Bishop of St. Andrew's set it on his head. The Bishop of Glasgow also presented to the new King a banner wrought with the arms of Balliol, which he had concealed in his treasury, and under it Robert received the homage of those who devoted themselves to his service. The Earls of Fife had, from a remote antiquity, enjoyed the privilege of crowning the Kings of Scotland; but Duncan, the representative of the family, favouring at this time the English interest, his sister, the Countess of Buchan, with a boldness and enthusiasm which must have

added to the popular interest felt for the young King, repaired to Scone, and asserting the privilege of her ancestors, placed the crown a second time on the head of Bruce. The eyes of all Scotland were now directed towards Bruce. Comyn was no more; and the brave Sir William Wallace had been executed by the English. Bruce was therefore without a rival; he was the heir to the throne, and his past conduct had given ample earnest at once of his intrepidity and prudence; he was regarded as the last remaining hope of his country.

## BALLAD OF THE CROWNING OF THE BRUCE.

There's come to the Bruce from Edward's Court,  
From a kinsman true and hold,  
A rowell'd pair of golden spurs,  
With a money coin in gold;  
And the spurs say—"Fly! brook no delay,"  
And the coin—"Use gold to speed the way."

The Bruce is gone, and the storm-bird's wing  
Had never a swifter flight;  
In five short days, to the Scots' amaze,  
He is treading Lochmaben's height;  
And one other dash on his king-path sees  
The Bruce in the city of fair Dumfries!

He has flashed on the craven Comyn's gaze,  
By the Minorite Convent-gate,  
One deep reproach, one gurgling threat,  
One glance of deadly hate;  
And the sheath freed dagger is gleaming red  
In the burning blood of a traitor dead!

St. Andrew's mitred lord has placed  
On his head the light gold band,  
And the Balliol-broidered flag is waved  
By the Glasgow Bishop's hand;  
While under its bannered pomp men bring  
The homage of nobles to Bruce their King!

Then a glorious woman, wondrous fair,  
Steps out from the brilliant train,  
And is dazzling all with her beauty rare,  
While she crowns the Bruce again!  
May he not call the hattle his own,  
When an angel leads him to Scotland's throne!



## MARCH.

In the month of March the woods and banks by the roadside are full of wild flowers; amongst the most beautiful of which may be mentioned prim-roses, violets, several kinds of veronica or speedwell, the common coltsfoot, with its golden star-like flowers without a single green leaf; the rare white-leaved grass, both white and yellow; the golden saxifrage; the little white wood anemone; and the lesser celandine, or pilewort, the shining golden yellow flowers of which appear at first sight to resemble those of the buttercup, though upon examination it will be found that their petals are numerous and sharp-pointed, while those of the buttercup are rounded, and their number never exceeds five.

Pansies, lilies, king cups, daisies,  
Let them live upon their praises;  
Long as there's a sun that sets  
Primroses will have their glory;  
Long as there are violets  
They will have a place in story;  
There's a flower that shall he mine,  
Tis the little celandine.

See its varnish'd golden flowers  
Peeping through the chilling showers,  
Ere a leaf is on the bush,  
In the time before the thrush  
Has a thought about its nest,

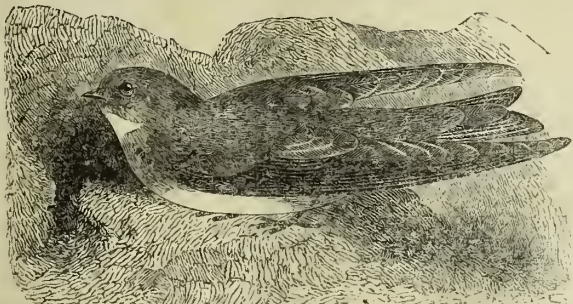
Thou wilt come, with half a call,  
Spreading out thy glossy breast,  
Like a careless prodigal;  
Telling tales about the sun  
When we've little warmth or none.  
Comfort have thou of thy merit,  
Kindly unassuming spirit;  
Careless of thy neighbourhood,  
Thou dost show thy pleasant face  
On the moor, and in the wood,  
In the lane—there's not a place,  
Howsoever mean it be,  
But 'tis good enough for thee.

WONNABWORTH.

Several of the forest trees are also now in flower; the willow, with its soft downy catkins; the acers, with their feathery blossoms; the elm, with tufts of purplish flowers, which, though too small to attract attention individually, yet give a kind of glow to the young shoots of the tree; and the lime, with its pale green flowers of delightful fragrance. The catkins of the hazel are now quite ripe, and the solitary crimson female flowers appear. The catkins of several kinds of poplars are also very conspicuous; and almost all the deciduous trees are partially in leaf. The black poplar, however, does not unfold its leaves till May, though it produces its large dark-red catkins in March, and towards the end of this month they fall, looking like great caterpillars on the ground. The capsules of the female catkins are enveloped in white cotton.

In this month the underwood of woods and forests is generally cut down; and the timber trees are felled, as, from the rising of the sap, the bark is more easily separated from them in this month than in any other. In the gardens, the almond, the apricot, and the peach, are now generally in flower; the *Pyrus*, or *Cydonia japonica*, opens its bright scarlet blossoms; and the *Corchorus japonicus* or *Kerria japonica*, its brilliant yellow flowers. All the crocuses are in full beauty, and nearly all the different kinds of narcissus and jonquils.

Many birds are in full song in this month. The garden thrush is one of the most interesting of the British songsters; and, like the nightingale, it sings nearly all night. Its nest is large, but not very compact, and its eggs are of a bluish tint, with irregular brown blotches. It lives principally upon snails, cracking their shells against a stone; and an amusing story is told of a tame thrush, which, being let out of its cage to fly about a room, took its mistress's pincushion, which was made in a whelk's shell, and hit it as hard as it possibly could against the table, in hopes of breaking it, thinking, no doubt, that some kind of snail was concealed within it. When the garden thrush is disturbed on her nest, she ruffles her feathers, spreads her tail, and snaps her bill with great force to drive away the intruder. As a great many nests may be found at this season, it may be useful to observe that the eggs of singing birds are almost always speckled, and generally on a dark ground. The greenfinch, the common wren, and the willow wren, have white eggs, spotted with red; the eggs of the house sparrow are of a dingy green, streaked with black; and those of the hedge sparrow, the magpie, and the crow, are of a greenish blue. The eggs of the raven are large, and of a dark green, blotched with brown; those of the flycatcher are of a bright clear blue; and those of the kingfisher are white. The eggs of the nuthatch and of the greater titmouse are both white, with very small spots of red, and it is difficult to distinguish them from each other. The duck begins to lay in this month; the goose sits on her eggs; and the cock-pheasant begins to crow. At this season the curious nests of the sand-martins may be observed, and they consist simply of holes in the perpendicular front of a sand rock, being sometimes so deep as to take a man's arm up to his shoulder



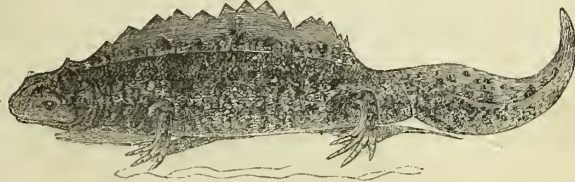
THE SAND MARTIN.

without reaching the bottom. Rennie gives the following description of the mode in which the sand martin builds its nest. He says he has seen "one of these swallows cling with its sharp claws to the face of a sand-bank, and peg in its bill as a miner would do his pickaxe, till it had loosened a considerable portion of the hard sand, and tumbled it down amongst the rubbish below. In these preliminary operations it never makes use of its claws for digging; indeed, it is impossible it could, for they are indispensable in maintaining its position, at least when it is beginning its hole." He also observes that the holes of some of these swallows are as nearly circular as if they had been drawn with a pair of compasses. The bird begins in the centre, and works outwards, changing its position continually, and it is as often hanging from the roof, with its back downwards, as standing on the floor. When the hole is of considerable depth, the bird "always scrapes out with its feet the sand detached by the bill; but, so carefully is this performed, that it never scrapes up the unmined sand, or disturbs the plane of the floor, which rather slopes upwards, and, of course, the lodgment of rain is thereby prevented." There is a whole colony of these swallows in the sand-banks near Woking, in Surrey; and there are others in various parts of Great Britain, from Devonshire to the north of Scotland.

About this season frogs reappear. They pass the winter in a state of absolute torpidity, in the mud at the bottom of the water in which they generally live. Here they congregate in multitudes, embracing each other so closely as to appear

almost as one continuous mass." (Bell.) On the return of spring, they separate from each other, and emerge gradually into active life. The eggs of frogs undergo eleven changes before the perfect animal is produced; and for at least a month they remain in what is called the tadpole state, in which the creature has a large head, and long body, but no legs.

The toad is torpid, like the frog, during winter; but it generally chooses for the place of its retreat some sheltered hole, or hollow tree.



THE COMMON WARTY NEWT: MALE.

The warty newt is in a state of great activity early in spring. It is common in ponds and large ditches, where it feeds upon the tadpole of the common frog. The male and the female newt are nearly the same in appearance during winter; but, in spring, a beautifully-cut crest rises from the back of the male, which is highly ornamental.

The manner in which the eggs are deposited is very interesting. "The female, selecting the leaf of some aquatic plant, sits, as it were, upon its edge; and, folding it by means of her two hinder feet, deposits a single egg in the duplication of the folded part of the leaf, which is thereby glued most securely together, and the egg is thus effectually protected from injury." As soon as the female has, in this way, deposited an egg, she seeks another leaf, on which she deposits another egg in the same manner; and in this way she proceeds till she has deposited as many eggs as she requires. The egg is very slightly tinged with buff, and it is surrounded by a substance resembling the white of a common egg, in which it keeps continually whirling round. It now goes through nine changes from the egg till it becomes a perfect insect, and for a considerable time it remains in a tadpole state, almost like the common frog.



THE COMMON SMOOTH NEWT: MALE.

The smooth newt is found in considerable numbers in almost every ditch and pond, especially where the water is tolerably clear; and it affords food not only to several kinds of fish, but to the warty newt, which is much larger than itself. Its own food consists of gnats, and other small insects, and also of the *Planorbis*, and other British molluscous animals, which it devours when they are quite young. In the month of June these animals quit the water, and remain for some time on land; the younger ones return to the water in autumn; but some of the older ones appear to become completely terrestrial, and may be found creeping about in damp places, near water, and sometimes venturing even into cellars. About the latter end of autumn, or the beginning of winter, the male newt acquires a crest, and his tail spreads out into a kind of web; both the tail and the crest being tipped with red. The body of the animal is also of a bright orange, passing into red; but, in June, when the newt quits the water, it loses its crest, its tail contracts, and its vivid colours change into a dull and uniform hue. The metamorphoses of this species differ very little from those of the larger kind, but the female is less careful in depositing her eggs, as she frequently lays three or four together upon an open leaf.

Bees generally become active in the month of March, as they are particularly fond of crocuses, which are generally in full flower in that month, and the bees partake so freely of their juices that it appears to intoxicate them. It is well known that the queen bee is longer and larger than the rest, and, as she is not intended for work, her movements are slow and apparently awkward. It is not, however, perhaps, so generally known that when bees swarm it is always the old queen that leaves the hive, while the young one remains behind. Bees are said to converse by crossing their antennæ; and it is certain that before swarming the queen may be seen going from one end of the hive to the other, and laying her antennæ across those of every working bee she meets with in the course of her progress; and also that each bee, as soon as touched, though quiet before, becomes instantly in a state of wonderful agitation, hurrying to and fro as though preparing for his journey, and at last joining the other bees that had been touched and all assembling together to be ready to attend their queen. The caddis worm, and other insects that live under water, sometimes begin to leave their cocoons in this month. The purple capricorn beetle, which is generally found feeding on the bark of trees that have been felled, goes into its chrysalis state in March, and reappears as a perfect insect in May or June. "When the insect is about to assume its chrysalis state, it bores down obliquely into the solid wood, to the depth sometimes of three inches, and seldom if ever less than two, forming holes nearly semi-cylindrical, and of exactly the form of the grub which inhabits them." This beetle is sometimes called the goat chaffer or musk beetle, on account of its smoky smell. The ground beetle is frequently found in the beginning of March, in paths near walls, where the sun has considerable power. It is one of the largest and most beautiful of the beetles which are natives of Great Britain. Its body is rather long and narrow; its head, breast, and wing cases are of a brilliant green, the latter being marked lengthwise with rows of oblong raised spots; and the under side of the insect is of a glossy black. The legs of this creature are remarkably long, and, when attacked, it runs away with amazing swiftness. It is generally found in gardens under heaps of decayed plants, or under stones. The larva of the beetle is a grub, and is very destructive, frequently continuing in its larva state three or four years, and eating voraciously during the whole of that time. Most insects eat only in the larva state, but the beetle continues to be destructive even when it is full grown.





NATIONAL SPORT, FRANCE—  
WOLF HUNT.

M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT					HIGH WATER AT LONDON BRIDGES				EQUA- TION OF TIME.	Day of the Year.	
			RISES.		SETS.	DECLINA- TION NORTH.	RISES. Afternoon	SOUTH Morning	SETS. Morning	Before Sunrise.			After Sunset.		Morning.	Afternoon.								
			h.	m.						2h.	3h.	4h.	O'Clock.	4h.			Moons Age.	O'Clock.	5h.	6h.				
1	Th	Maundy Thursday	5	38	6	31	4	25	7	27	Morning	5	44											
2	F	Good Friday	5	36	6	33	4	48	8	30	0	52	6	10										
3	S	Game Certifi. exp.	5	34	6	35	5	11	9	33	1	37	6	36										
4	S	EASTER SUNDAY	5	31	6	37	5	34	10	35	2	24	7	10										
5	M	Easter Monday	5	29	6	38	5	57	11	35	3	13	7	47										
6	Tu	Easter Tuesday	5	27	6	40	6	19	Morning		4	4	8	32										
7	W	Easter Wednesday	5	24	6	41	6	42	0	29	4	56	9	24										
8	Th	The Sun rises E. by N. and sets W. by N.	5	22	6	43	7	5	1	18	5	50	10	25										
9	F	α Hydræ Souths 8h. 10m. P.M.	5	20	6	44	7	27	2	2	6	44	11	32										
10	S	Regulus Souths 8h. 48m. P.M.	5	18	6	45	7	49	2	40	7	38												
11	S	Low SUNDAY—SO	5	15	6	47	8	11	3	12	8	33	2	3										
12	M	called because it was usual to repeat some part of the Easter festivities, and thus it was considered a feast of a lower order	5	13	6	48	8	33	3	45	9	28	3	24										
13	Tu		5	11	6	50	8	55	4	14	10	23	4	44										
14	W		5	9	6	52	9	17	4	45	11	18	6	5										
15	Th	Easter Term begins	5	7	6	54	9	39	5	17														
16	F	Mars rises at 3h. 9m. A.M.	5	5	6	55	10	0	5	51	1	11	8	42										
17	S	Spica Virginis souths at 11h. 35m. P.M., 29 deg. high	5	2	6	57	10	21	6	29	2	8	9	53										
18	S	2ND SUN. AFT. EA.	5	0	6	59	10	42	7	14	3	4	10	57										
19	M	St. Alphege	4	57	7	11	3	8	5	3	59	11	51											
20	Tu	β Leonis Souths 9h. 47m. P.M.	4	56	7	2	11	24	9	1	4	52												
21	W	Regulus souths at 8h. 2m. P.M. 51 deg. high	4	55	7	4	11	44	10	0	5	42	0	38										
22	Th	Venus sets 10h. 3m. P.M.	4	53	7	6	12	5	11	0	6	29	1	16										
23	F	St. George	4	51	7	8	12	25	Afternoon		7	14	1	47										
24	S	β Corvi Souths 10h. 10m. P.M.	4	49	7	10	12	45	1	6	7	58	2	15										
25	S	St. Mark the	4	47	7	11	13	5	2	9	8	41	2	40										
26	M	Evangelist	4	45	7	13	13	24	3	10	9	23	3	4										
27	Tu	η Bootes Souths 11h. 26m. P.M.	4	43	7	14	13	43	4	12	10	5	3	26										
28	W	The Sun rises E.N.E. and sets W.N.W.	4	41	7	16	14	2	5	16	10	49	3	48										
29	Th	Mars rises 2h. 41m. A.M.	4	39	7	17	14	21	6	21	11	34	4	13										
30	F	Arcturus souths at 11h. 36m. P.M. 58 deg. high	4	37	7	19	14	40	7	23	After dusk	4	40											



## APRIL.

THE MOON from the 1st to the 6th rises during the evenings. On the 1st, very nearly at the same time as Spica Virginis, from which star she is distant a few deg. N, and during the night is moving eastward from it. On the 2d, she is in Virgo; on the 3rd and 4th, in Libra, directing her course a few deg. N of Antares. On the 5th, 6th, and 7th, she is in Ophiuchus; on the 5th being N.E. of Antares.

On the 8th, at 3h. 26m. in the afternoon, she enters her 3rd quarter and does not rise on the 8th at all. On the 9th, she rises early in the morning, and is in Aquila. On the 10th, 11th, and 12th, she is in Aquarius. On the 13th, in Pisces; and at 7h. A.M., on the Equator, moving N. On the 15th and 16th, in Aries. On the 15th, at 6h. 22m. in the morning is new. And as the line joining the Sun and the Earth passes nearly through the centre of the Moon, a total eclipse of the Sun takes place, but it is invisible in this country.

On the 17th, 18th, and 19th, she is in Taurus, her crescent being seen soon after sunset, on the 18th a little E. of Aldebaran, and directing her course to the Milky Way. On the 19th, she is in part of Orion in the Milky Way. On the 20th and 21st in Gemini, being on the latter day a few deg. S.E. of Castor and Pollux. On the 22nd, at 9h. 9m. in the morning she enters her first quarter, and is in Cancer. From the 23rd to 25th, she is in Leo. On the 24th, during the evening, she is a few deg. below Regulus, moving Eastward from the star. On the 26th, at 9h. 15m. on the Equator, and going S. From the 26th to the 29th, is in Virgo. On the 28th, before midnight, she is W. of Spica Virginis; and at midnight passes the star, being about 3° N. On the 30th, she is in Libra; and at 1h. 26m. P.M. is full, but without an eclipse, being 21° from the Eclipse.

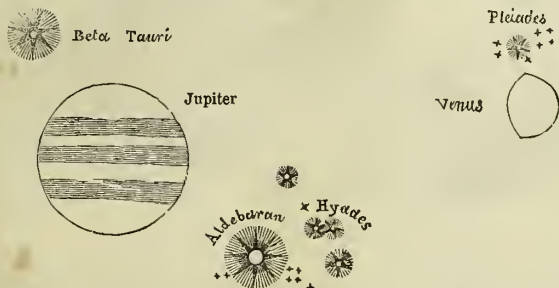
MERCURY will be in the constellation of Pisces till the 17th, and after that time in that of Cetus; on the 1st he rises at 5h. 23m. A.M., in the E. by N.; and souths a few minutes before the Sun. On the 6th, he rises at 5h. 0m. A.M.; on the 11th, at 4h. 44m. A.M.; on the 16th, at 4h. 32m. A.M.; on the 21st, at 4h. 21m. A.M.; and on the 26th, at 4h. 13m. A.M. Between the 14th and the 24th, he rises very nearly E., and after the latter time a little N. of E. and souths at an altitude of 38° at about 10h. 25m. A.M. At about the middle of the month he rises only about half an hour before the Sun, and, therefore, he is not favourably situated for observation; at that time he is about 14° S.S.E. of Gamma Pegasi.

VENUS will be in the constellation of Aries till the 14th, on which day she passes into that of Taurus.

On the 1st she souths at 1h. 40m. P.M., at the altitude of 52°; and sets at 8h. 56m. in the W.N.W. On the 15th, she souths at 1h. 52m. P.M., at the altitude of 58°; and sets at 9h. 41m. P.M. near N.W. by N. On the 30th, she souths at 2h. 8m. P.M. at the altitude of 62°; and sets at 10h. 26m. P.M., nearly midway between N.W. by N. and N.W.

On the 1st, she is situated about 21° from the Pleiades, and 10° from Alpha Arietis, and she forms, with those two objects, a triangle, being below the line joining them; she is moving towards the Pleiades till the 18th, being, however, on the 9th in a line joining the Pole Star, Beta Persi, and Alpha Ceti, and distant 14° N. of the latter star. During the evening of the 16th she is E., and during that of the 17th she is W. of the Moon; and on the former she is about 5°, and on the latter about 3° above her. On the 18th, she is 3° S. of the Pleiades, and after this time she is moving from them. On the 28th, she, with the Pleiades and Aldebaran, form a right angled triangle, being distant 10° E. of the Pleiades, and 6° N. of Aldebaran; after this time, to the end of the month, she is a little E. of the line joining the Pole Star and Aldebaran, and moving towards the Planet Jupiter.

RELATIVE SITUATION AND APPEARANCE OF JUPITER AND VENUS ON APRIL 18TH.



The Planets are drawn on a scale of 40" to an inch. The centre of each Planet

is the part to be referred to in comparison with the situation of the neighbouring stars, and to each other.

MARS will be in the constellation of Capricornus till the 26th, and in that of Aquarius after that time. He rises near the S.E. by E. at the beginning; midway between S.E. by E. and E.S.E. about the middle; and near the E.S.E. at the end of the month. On the 1st, at 3h. 39m.; on the 15th, at 3h. 11m., and on the last day, at 2h. 34m. A.M. He souths on the 1st, at 7h. 56m. at an altitude of 19° and on the 30th at 7h. 25m. A.M., at an altitude of 24°.

On the 1st he is situated in a line drawn from the Pole Star through Delphinus, and at 35° distance from these stars. On the 18th, he is situated in a line joining the Pole Star and Beta Aquarii; produced to the distance of 11° S. of the latter star; he is also 38° distant from Alpha Pegasi, and 35° from Alpha Aquila. On the 30th, he is situated in a line joining the Pole Star and Alpha Aquarii produced 13°; and he is 30° from Alpha Pegasi.

JUPITER will be still in the constellation of Taurus throughout the month. He sets a little N. of the N.W. by N. point of the horizon. On the 1st a 0h. 14m. A.M. On the 5th he sets twice on the same day, viz., at 0h. 1m. A.M., and at 1h. 58m. P.M. On the last day he sets at 10h. 54m. P.M. He souths at an altitude of 61°. On the 1st, 4h. 4m., and on the last day, at 2h. 34m. P.M.; on the 1st, he is about 8° N.N.E. of Aldebaran, and he is moving eastward towards the Milky Way during the month; at the end of the month he is nearly in a line joining Capella and Rigel, being 24° distant from the former, 31° from the latter, and about 7° W. of the Milky Way. The star 3° above him, is Beta Tauri.

SATURN rises about midway between E.S.E. and E. by S. all the month; on the 1st, at 4h. 52m. A.M., and on the 30th, at 3h. 2m. A.M. He souths at an altitude of 28°; on the 1st, at 10h. 4m., and on the last day, at 8h. 20m. A.M. His motion among the stars is very slowly towards the E. He is situated nearly in a line joining Alpha Pegasi and Fomalhaut, and nearly midway between them; his distance from the former being 24°, and from the latter 22°. These two stars are the guiding stars for finding him throughout the remainder of the year.

URANUS during this month, rises, souths, and sets very nearly at the same times as the Sun does—and, therefore, he cannot be seen. On the 9th he passes from the constellation of Cetus to that of Pisces, in which he remains during the remainder of the year.

## TIMES OF THE SOUTHING, &amp;c. OF THE PRINCIPAL FIXED STARS, WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Stars Names.	Mag. num.	Time of south- ing during the evening of the 1st day.	Height in degress above the horizon S (South) N (North)	Setting.	
				No. of hours from southing.	Point of the horizon.
Castor	3	h 6 m.	47	71°s	9
Procyon	1	6	53	44s	6½
Pollux	2	6	58	67s	9
Alpha Hydræ	2	8	42	31s	5½
Regulus	1	9	21	51s	7½
Alpha Ursæ Majoris	1	10	15	79n	Never Sets
Beta Leonis	2	11	2	54s	7½
					Near N.W.
					Near W. by N.
					Near N.W.
					Near W. by S.
					W.N.W.
					Near W.N.W.

## POSITION OF THE CONSTELLATION'S RISING ON THE MERIDIAN, AND SETTING ON THE 1ST DAY AT 10H. P.M.

Constellations Rising.	Constellations on the Meridian.	Constellations setting.
The following wing of Cyg- nus in N.N.E. Lyra, 13° high above N.E.	A part of Cepheus 20° above N. horizon Polaris	The body of Andromeda near N.W. by N. Musca, between N.W. and N.W. by W.
The head of Hercules, and the head of Ophiuchus, midway between E. by N., and E.N.	The hind legs of Ursa Major, and the stars Alpha & Beta (the point- ers) between Polaris and the Zenith	The neck of Taurus, 10° high above W. by N.
The middle of Serpens, be- tween E. and E. by S. Both scales of Libra in E.S.E.	Leo, 50° above S. horizon	Orion in W. by S.
The tail of Hydra in S.E.	The body of Hydra 25° above S. horizon	The head of Canis Major in S. W. by W.

Days of the Month.	Length of Day, or number of hours between Sun-rise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Daybreak, or beginning of Twilight.	Time of Twilight Ending.
1	H. M. 12 53	H. M. 5 8	H. M. 3 38 A.M.	H. M. 8 31 P.M.
6	12 13	5 28	3 24 "	8 43 "
11	13 32	5 47	3 9 "	8 53 "
16	13 50	6 5	2 54 "	9 6 "
21	14 9	6 24	2 38 "	9 21 "
26	14 28	6 43	2 21 "	9 32 "
30	14 42	6 57	2 6 "	9 50 "

## JUPITER'S SATELLITES.

Eclipses of	
1st. Sat.	2nd. Sat.
Emersion.	Emersion.
D. H. M. 5 9 54 P. M.	D. H. M. 6 7 40 P. M.
21 8 14 P. M.	13 10 15 P. M.
3rd. Sat.	
6 8 15 P. M. } Emersion } 13 9 40 P. M. } Immersion }	

## OCULTATIONS OF STARS BY THE MOON.

Names of the Stars.	Mag. num.	Times of disappearance and re appearance of the Star.	At the dark or bright limb of the Moon.
A2 Cancri	6	D. M. M. 22 11 24 P. M. 23 0 16 A. M.	Dark Bright
Lambda Virginis	4	30 4 16 A. M. At the time the star emerges the Moon will have set.	Nearly Full Moon

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Peri- gee) from the Earth in each Lunation.		Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
			MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
			Right Ascension	Declina- tion North	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion South	Right Ascension	Declina- tion North	Right Ascension	Declina- tion South.	Right Ascension	Declina- tion North.
LAST QUARTER	.. 8D. 3H. 26M. P.M.	1	0h. 32m.	6° 53'	2h. 17m	13° 39'	20h. 33m	19° 56'	4h. 42m	21° 54'	22h. 40m	10° 5'	0h. 53m	4° 59'
NEW MOON	.. 15 6 22 A.M.	6	0 20	3 48	2 41	15 49	20 48	19 5	4 46	22 1	22 42	9 54	0 54	5 4
FIRST QUARTER	.. 22 9 2 A.M.	11	0 14	1 38	3 5	17 49	21 3	18 11	4 50	22 8	22 44	9 43	0 55	5 11
FULL MOON	.. 30 1 26 P.M.	16	0 15	0 26	3 29	19 37	21 17	17 13	4 53	22 15	22 46	9 33	0 56	5 18
PERIGEE	.. 13 11 P.M.	21	0 23	0 18	3 54	21 13	21 32	16 11	4 58	22 22	22 48	9 23	0 57	5 24
APOGEE	.. 26 6 A.M.	26	0 37	1 8	4 19	22 34	21 46	15 6	5 2	22 29	22 49	9 14	0 58	5 30

NOTE.—Declination is angular distance from the Equator, and it is North or South according as the object is North or South of the Equator; when, therefore, an object is on the Equator, it has no Declination.



## April Anniversary.



THE BATTLE OF CULLODEN.

## THE BATTLE OF CULLODEN

"Drummosie Muir, Drummosie day,  
A wae'ful day it was to me;  
For there I lost my father dear,  
My father dear and breetren three."

Thus celebrated battle was fought on the estate of Culloden, Inverness, on April 16, 1746, and which is memorable as having put an end to the Rebellion. On the night preceding, the Highlanders had intended to surprise the Duke of Cumberland, in his camp, at Nairn; but this scheme having failed, they took up a position on the Moor of Drummosie, their left wing towards the house of Culloden, where the declivity of the hill was soft and marshy, their right slightly protected by a stone wall. The ground was unfavourable, and the Highlanders were weakened by hunger and fatigue, so that it had been judged expedient to withdraw to the hills; but the difficulty of finding subsistence for the men, and the importance of protecting Inverness, determined the Prince Charles Edward and his councillors to venture a battle. Drawn up in a line in the position above mentioned, while waiting for the signal to charge, the Highlanders suffered greatly from the English artillery. Exasperated, at last, beyond endurance, the centre rushed forward; and the last charge of the Highlanders, under their patriarchal discipline, and with their peculiar arms, is thus vividly described in Chambers's "History of the Rebellion":—

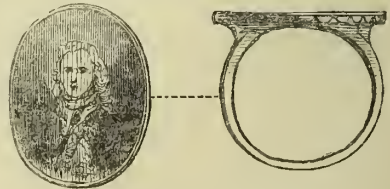
"A lowland gentleman, who was in the line, and who survived till a late period, used always, in relating the events of Culloden, to comment with a feeling of something like awe upon the terrific and more than natural expression of rage which glowed in every face and gleamed in every eye, as he surveyed the extended line at this moment. Notwithstanding that the three files of the front line of English poured forth their incessant fire of musketry; notwithstanding that the cannon, now loaded with grape-shot, swept the field as with a hail-storm; notwithstanding the flank fire of Wolf's regiment, onward went the headlong Highlanders, flinging themselves into, rather than rushing upon, the lines of the enemy, which, indeed, they did not see for the smoke till involved among their weapons. It was a moment of dreadful, agonising suspense, but only a moment, for the whirlwind does not sweep the forest with greater rapidity than the Highlanders cleared the line. They swept through and over that frail barrier almost as easily and instantaneously as the bounding cavalcade brushes through the morning labours of the gossamer which stretch across its

path; not, however, with the same unconsciousness of the events! Almost every man in their front rank, chief and gentleman, fell before the deadly weapons which they had braved; and although the enemy gave way, it was not till every bayonet was bent and bloody with the strife.

"When the first line had been completely swept aside, the assailants continued their impetuous advance till they came near to the second, when, being almost annihilated by a profuse and well directed fire, the shattered remains of what had been, but an hour before, a numerous and confident force, at last submitted to destiny by giving way and flying. Still, a few rushed on, resolved rather to die than thus forfeit their well-acquired and dearly-estimated honour. They rushed on, but not a man ever came in contact with the enemy. The last survivor perished as he reached the points of the bayonets."

It is said, that in one place, where a vigorous attack had been made, their bodies were afterwards found in layers three or four deep.

The right wing of the Highlanders, advancing at the same time, was attacked in flank by the English cavalry and broken; the left withdrew almost without sharing in the fight. About 600 men were killed on each side. The battle, however, was decisive; the Prince fled to the mountains, and some days after, gave



SIGNET-RING OF THE PRETENDER.

notice to his partisans to provide for their own safety, declining to continue the contest with 8000 men, who were ready to meet him in Badenoch. This memorable event has given rise to many plaintive popular songs: a verse from one of which, pathetically lamenting the horrors of war, is quoted above.



## APRIL.

In the month of April most of the trees are in leaf, and all nature looks so gay and beautiful, that we cannot refrain from quoting the exquisite lines of Mrs. Hemans, called "The Voice of Spring"—

I come, I come! ye have call'd me long,  
I come o'er the mountains with light and song!  
Ye may trace my step o'er the wakening earth,  
By the winds which tell of the violet's birth,  
By the primrose stars in the shadowy grass,  
By the green leaves opening as I pass.

I have hreath'd on the South, and the chestnut flowers  
By thousands, have hurst from the forest bowers,  
And the ancient graves, and the fallen fanes,  
Are veil'd with wreaths on Italian plains;  
But it is not for me, in my hour of bloom,  
To speak of the ruin or the tomb!

I have pass'd o'er the hills of the stormy North,  
And the larch has hung all its tassels forth,  
The fisher is out on the sunny sea,  
And the rein-deer hounds through the pasture free,  
And the pine has a fringe of softer green,  
And the moss looks bright, where no step has been.

At this season a great variety may be observed in the colours of the young leaves of the trees: the balsam poplar, which is one of the earliest, has its leaves of a beautiful yellowish green; the lilac, which is also early, is of a bluish green; some oaks are almost yellow, and others are of a bright reddish brown, with a tinge of yellow; the beech is of a purplish and rather dingy brown; the elm has large red bracts, which fall off as the leaves, which they enclose, unfold; and the lime has leaves of a peculiarly soft and tender green. The blossoms of the forest trees now also begin to show themselves; those of the lime are peculiarly fragrant, and they have attached to them a long, thin, membranous bract, which renders them easy to be recognised. The flowers of the acers have no petals, but the anthers of their stamens are deeply coloured—sometimes red and sometimes yellow, so that they are very ornamental; the flowers of the sycamore are drooping and very elegant. On the plane trees, the ball-like fruit of the previous year is probably still hanging, while the young leaves are opening; those of the American plane (*Platanus occidentalis*) are invested in a cottony down, which falls off when the buds burst, in such quantities as to make the Americans call the tree the cotton wood. Towards the end of this month, the large red catkins of the black poplar begin to fall, and look on the ground like caterpillars of the goat moth (*Cossus ligniperda*). The catkins of the Italian poplar (*Populus monolifera*) also begin to fall towards the latter end of April, and scatter masses of cottony substance upon the ground till it is quite white beneath the trees. The ash, in this month, produces its curious seed pods, which, in some parts of Great Britain, are called keys, and in others cocks and hens. The hop hornbeam and the common hornbeam are also in flower in this month, and are very ornamental. Among the herbaceous plants are cowslips, polyanthus, and the arum, so beautifully described by Clare:—

How sweet it used to be, when April first  
Unclos'd the arum leaves, and into view  
Its ear-like spindling flowers their cases hurst,  
Beting'd with yellowish white or lushy hue;  
Ah, how delighted, humming all the time  
Some nameless song or tale, I sought the flowers;  
Some rusby dyke to jump, or bank to climb  
Ere I obtain'd them; while from basty showers  
Oft under trees we nestled in a ring.  
Culling our "lords and ladies"—O ye hours!

Dog violets, purple anemones, several kinds of orchis, the wood sorrel, ground ivy, the white meadow saxifrage, the forget-me-not and wood scorpion grass, with various kinds of ranunculus or crow-foot, and the globe flower, make the fields and banks a mass of beauty. The flowers of the marsh-marigold, and those of the water ranunculus, adorn the ponds and pieces of stagnant water; and, in short, the whole country is covered with flowers. One curious plant, which is found only at this season, is the toothwort (*Lathraea squamaria*). It grows on the roots of trees and has a yellow stalk, clothed with white tooth-like scales instead of leaves, and bearing very pale purple flowers. Another curious plant, which is in perfection at this season, is a kind of liverwort (*Marchantia hemisphaerica*), which, in fruit, looks like a number of little green



MARCHANTIA HEMISPHERICA.

toadstools growing out of flat leaves, and which is generally found with the common liverwort, on the earth in flowerpots, on the banks of ditches, or in the moist crevices of rocks.

Among the birds of this month, the most interesting is, undoubtedly, the nightingale, which generally arrives in England about the middle of April, and commences singing about the 26th of that month. It is elegant in its shape, though its plumage is only of a dull, greenish brown. The song of the male bird, during the pairing and hatching seasons, is probably finer than that of any other bird. It "breathes," as Isaac Walton expresses it, "such sweet, loud music out of its little instrumental throat, that it might make mankind think that miracles had not ceased. He, that at midnight, when the very labourer sleeps securely, should hear, as I have very often, the clear airs, the sweet descent, the natural rising and falling, the doubling and re-doubling of that sweet voice, might well be lifted above the earth, and say, 'Lord, what music hast thou provided for the saints in Heaven, when thou affordest bad men such music on earth?' It is a curious circumstance that, when the nightingale has once begun to sing, it is very difficult to make it stop. Even a stone thrown into the bush has no effect; and an attempt to seize the bird will only make the song cease for a few moments, as the bird, as soon as it has found a more secure posi-

tion, will recommence its song as loudly and as beautifully as before. An alarm before the bird had begun to sing would, however, probably prevent it from singing at all that night. The black-cap, or mock nightingale, is another singing bird which is generally heard in the month of April. It has a merry, cheerful song; and, though it sometimes imitates the nightingale so well as to be mistaken for that bird, yet it never can preserve its imitation long. It seems such a little madcap, that it can't bear control, and must burst forth again into its own wild, joyous notes of glee. The cuckoo begins to sing about the 14th of April, which is still called Cuckoo Day in some parts of England; and many old persons consider that they shall be unlucky all the year if they do not hear the cuckoo on that day. The wood wren, or petty-chaps, sings in April. It is a beautiful little bird, of so bright a green, that it is called, in Germany, the leaf-bird, or the green wren. The redstart, the titlark, the willow wren, the sedge warbler, and many other birds, begin to sing in this month.

In this month several luminous insects appear, the most remarkable of which are the glow-worm and the scolopendra. The scolopendra being seldom found, except in dry, gravelly soils, many people are comparatively little acquainted with it. It is a long, slender insect, white, or of a cream-colour, tinged with red, and having numerous feet. It lives on the ground; and, when it is seen crawling by night, it leaves a long, brilliant line of light behind it. A curious battle between one of these insects and a stag beetle is related in the *Magazine of Natural History* for 1832:—"A gentleman was walking in a flower garden, when he perceived that one of the beds was almost covered with a brilliant light. The light was brighter than that of the glow-worm, and six or seven inches square; and it appeared so extraordinary, that he was determined to examine it. When he approached the spot, he saw, to his great surprise, a large stag-beetle, quite covered with the luminous matter, which seemed to confuse and bewilder it, for it staggered about in a most extraordinary manner. Observing the beetle closely, he found that it was running and stumbling to and fro, as if blinded by its own unnatural light; every now and then stopping and thrusting its head into the ground, and rolling itself over and over, as if to try to get rid of its fiery coating. In all its movements, however, it seemed quite unable to escape from the spot of illuminated ground; and, as though it was incessantly running round and round, it never attempted to pass the boundary. The gentleman, as he watched the beetle, became more and more puzzled to discover the cause of this singular scene; till at last he discovered, beyond the boundary, a *Scolopendra electrica*, a perfect line of silvery light, slowly, but gracefully, winding itself away, without leaving the least mark by which its track could be discovered." Snails are now abundant and active, destroying almost every kind of vegetation they can find. The female earwig may sometimes be found under stones, or in some sheltered situation, placed over a heap of eggs, which she appears to brood over as carefully as a hen does over her chickens. The young are seldom hatched before the middle of May; and when they first leave the egg they are nearly white. The earwig is almost the only insect that takes care of her young; as generally, insects, after laying their eggs, leave them to be hatched by the sun. The supposition that earwigs gnaw the drum of the ear is a vulgar error, as the forceps of the earwig are not strong enough to divide the skin. The insect vulgarly called the death-watch, is usually heard at this season. It is a species of *Anobium*, a genus of small beetles. These insects



THE DEATH-WATCH.

live entirely upon wood: the eggs appear to have been deposited near some crack in a piece of furniture, or on the binding of an old book. As soon as the larvae are hatched, they begin to eat their way into the furniture on which they have been deposited, and when they have attained a sufficient depth, they undergo their transformations, and return, by another passage, as beetles. In furniture that has been attacked by them, little round holes, about the size of the head of a pin, may be seen, and these are the holes that have been made by the beetles. The noise which has given rise to the name of death-watch, is made by the insect striking its head against the wood. The larva is called a book-worm, when it attacks books; and old books that are seldom used are often found bored through by it; as, though it prefers the cover, when it has finished one side it searches for the other, and takes the nearest way to it by boring through the leaves of the book, however thick the volume may be. Kirby and Spence mention that in one case twenty-seven folio volumes were eaten through in a straight line by this insect. The beetle is very small, and almost black. The head is particularly small, and, from the prominence of the thorax, looks as if it were covered with a hood. Another insect of the same genus (*Anobium puniceum*) attacks dried objects of natural history, and all kinds of bread and biscuits, particularly sailors' biscuits, in which its maggots frequently abound. In collections of insects it first consumes the interior; and when the larva assails birds, it is generally the feet that it devours first; and in plants, the stem, or ligneous part. The larva is a small white maggot, usually curled; and the body, which is wrinkled, consists of several segments covered with fine hairs. The jaws are strong and horny, and of a dark brown. The pupa is white, but so transparent that all the parts of the perfect insect may be seen through it. The beetle is of a reddish brown, covered with fine hairs.

The saw-fly, which is so destructive to the gooseberry bushes, generally makes its appearance in the month of April, issuing from the ground in which it has lain from the preceding September. The fly has a flat yellow body, and four transparent wings, the outer two of which are marked with brown on the edge. The female lays her eggs on the underside of the leaf



ANOBIIUM PUNICEUM.



THE SAW-FLY OF THE GOOSEBERRY.

on the projecting veins, and they are so firmly attached that they cannot be removed without crushing them. It is supposed that the female insect makes a number of very small cuts in the projecting veins of the leaf, and lays an egg in each; so that the edges of the wounded membrane grasp and hold firmly the part of the egg which is thrust into the gap by the insect. Similar insects attack the leaves of the osier and the alder.



NATIONAL SPORT, GERMANY—  
WILD BOAR HUNT.

M D	D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT.					HIGH WATER AT LONDON BRIDGE					EQUA- TION OF TIME.	Day of the Year
			Rises	Sets.	DECLINA- TION NORTH.	Rises.	SOUTHS.	Sets.	Morning.	Before Sunrise.			After Sunset.			Mo	ing	Afternoon	Subt.					
										O'Clock.	1h.	2h.	3h.	Moons Age.	O'Clock.					9h.	10h.	11h.		
1	S	<i>St. Philip</i>	4 35	7 21	14 58	8 27		5 10					16											
2	S	4TH SUNDAY AFT.	4 33	7 23	15 16	9 29		5 46					17											
3	M	EASTER	4 31	7 24	15 34	10 26		6 29					18											
4	Tu	Regulus Souths at 7h. 12m. P.M., 51 deg. high	4 29	7 26	15 52	11 16	2 53	7 20					19											
5	W	β Leonis Souths at 8h. 49m. P.M.	4 28	7 27	16 9	Morn'ng.	3 46	8 18					20											
6	Th	<i>St. John</i>	4 26	7 29	16 26	0 2	4 40	9 23					21											
7	F	β Corvi Souths at 9h. 25m. P.M.	4 24	7 30	16 43	0 42	5 34	10 33					22											
8	S	Half Quarter	4 22	7 32	17 0	1 16	6 27	11 47					23											
9	S	ROGATION SUN.	4 21	7 34	17 16	1 45	7 19						24											
10	M	η Bootis Souths at 10h. 34m. P.M.	4 19	7 35	17 32	2 15	8 12	2 22					25											
11	Tu	Spica Virginis Souths at 10h. 0m. P.M., 23 deg. high	4 17	7 36	17 47	2 43	9 5	3 40					26											
12	W	[Ascension Day]	4 16	7 38	18 3	3 13	9 59	4 59					27											
13	Th	<i>Holy Thursday</i>	4 14	7 39	18 18	3 45	10 55	6 17					28											
14	F	The ILLUSTRATED	4 12	7 41	18 33	4 21	11 51	7 31					29											
15	S	LONDON NEWS first pub- lished, 1842	4 11	7 42	18 47	5 3		8 39					30											
16	S	S. AFT. ASCEN.	4 10	7 44	19 1	5 51	1 44	9 39					1											
17	M	Arcturus Souths at 10h. 29m. P.M., 53 deg. high	4 8	7 45	19 15	6 45	2 39	10 30					2											
18	Tu	α Corona Borealis Souths at 11h. 44m. P.M.	4 7	7 47	19 28	7 43	3 32	11 13					3											
19	W	<i>St. Dunstan</i>	4 5	7 48	19 42	8 46	4 22	11 47					4											
20	Th	Sun in Taurus	4 4	7 49	19 54	9 50	5 9						5											
21	F	Sun enters Gemini	4 3	7 51	20 7	10 54	5 54	0 17					6											
22	S	Trinity Term beg.	4 1	7 52	20 19	11 56	6 37	0 44					7											
23	S	WHIT SUNDAY	4 0	7 53	20 31		7 19	1 8					8											
24	M	Birth Q. Victoria	3 59	7 55	20 42	2 1	8 1	1 30					9											
25	Tu	Whit Tuesday	3 58	7 58	20 53	3 4	8 44	1 52					10											
26	W	Oxford Term beg.	3 57	7 57	21 4	4 6	9 28	2 16					11											
27	Th	Camb. Term div.	3 56	7 59	21 14	5 12	10 15	2 42					12											
28	F	The Sun rises near N.E. by N. and sets near N.W. by N.	3 55	8 0	21 24	6 16	11 3	3 11					13											
29	S	Restor. K. Chas.	3 54	8 1	21 34	7 20	11 54	3 44					14											
30	S	TRINITY SUNDAY	3 53	8 2	21 43	8 19		4 25					15											
31	M	Antares Souths at 11h. 45m. P.M., 12 deg. high	3 52	8 3	21 52	9 13	0 47	5 14					16											
													17											



## MAY.

The Moon rises during the evenings between the 1st and the 4th. On the 1st day she is in the Constellation of Libra, and on the 2nd and 3rd, in that of Ophiuchus. On the 2nd, she rises before Antares, which star is S.E. of her during the night. Her course lies through a barren region, and her nightly recess from Antares will be for some time the chief object of notice. On the 4th at the time of rising she is seen near the E. edge of the Milky Way, and during the night she is moving from it. On the 4th and 5th, her course is very near the boundary of the constellations of Sagittarius and Aquila. On the 5th, she does not rise till after midnight. On the 7th, she is in Capricornus; at 10h. 49m. on this day she enters her last quarter. On the 8th and 9th, she is in Aquarius, on the latter day, being directly under the square of Pegasus. On the 10th, at 3h. p.m. she is on the Equator, going N. On the 11th and 12th, she is in Pisces, the square of Pegasus being W. of her. On the 13th and 14th, she is in Aries, and on the latter day, at 3h. 23m. p.m. she is new, but without an eclipse, as she is then 3 degrees from the line joining the Sun and Earth. On the 15th and 16th, she is in Taurus, on the 17th in Gemini, and her crescent may be seen soon after Sun-set at a considerable distance S.W. of Castor and Pollux. On the 18th she will be about 16° S. of Castor, and she will set under Castor and Pollux. On the 19th she is in Cancer, a region marked by no principal stars. From the 20th to the 23rd, she is in Leo, moving towards Regulus till midnight on the 21st, at which time she passes this star, and she is E. of Regulus after that time. On the 21st, at 1h. 59m. A.M., she enters her 1st quarter. On the 24th, at 5h. A.M. she is on the Equator, and going S., directing her course towards Spica Virginis. On the 24th, 25th, 26th, and 27th, she is in Virgo; during the night of the 24th, she is W. of Spica Virginis, which star she passes before rising on the 25th, so that during the night of the latter day, she is E. of that star. On the 28th and 29th, she is in Libra, on the 30th, in Ophiuchus, and in Sagittarius on the last day, her course being over the E. branch of the Milky Way. On the 30th day, at 2h. 46m. she is full, but without an eclipse, she being 43 degrees from the Ecliptic.

MERCURY, on the 1st passes from the constellation Cetus into that of Pisces; on the 11th, into Cetus again; on the 14th into Aries, and on the 25th into Taurus. During the first half of the month he is rather favourably situated for observation, and may be seen before sun-rise. On the 1st, 6th, 11th, 16th, 21st, and 26th, he rises at 4h. 2m.; 3h. 54m.; 3h. 47m.; 3h. 40m.; 3h. 36m.; and 3h. 34m. in the mornings respectively. On the 1st, at a little N. of E.; on the 10th, at E. by N.; on the 20th, at E.N.E.; and on the 31st at the N.E. by N. points of the horizon. He souths on the 1st, at 10h. 20m. A.M., at an altitude of 41°; on the 15th, at 10h. 37m. A.M., at an altitude of 48°; and on the 31st day at 11h. 34m. A.M., at an altitude of 59°. His position, therefore, during the month, varies rapidly.

VENUS will be in the constellation of Taurus, till the 14th, and in that of Gemini after that time.

On the 1st, she souths at 2h. 10m. P.M., and sets at 10h. 29m. P.M.; on the 15th, she souths at 2h. 28m. P.M., and sets at 10h. 55m. P.M.; and on the last day, she souths at 2h. 47m.; and sets at 11h. 10m. P.M. The altitude at the time of southing is between 62° and 64°, and she sets nearly midway between N.W. by N. and N.W., throughout the month.

On the 1st, she is 9° N.E. of Aldebaran, and about 5° W. of Jupiter; on the 5th, during the evening, Venus and Jupiter are near together, the former being about 2° N. of the latter, and both objects are nearly in the line joining the Pole Star, Capella and Rigel, Venus being 21° distant from Capella, and 33° from Rigel. On the 6th, she will have passed to the east of Jupiter, but still near him. Both objects, after this time, are moving nearly in the same direction, but the much greater rapidity of the motion of Venus will cause them to become more and more separated day by day. Venus is moving towards a point south of Castor and Pollux; between the 8th and the 17th, she will be crossing the Milky Way, and at the end of the month she is situated about 8° S. of Castor, and 4° S. of Pollux, these three objects forming a pretty little triangle, of which Venus occupies the lower angle.

She is in the neighbourhood of the Moon during the evenings of the 16th and 17th days; being about 8° E. of her on the 10th, and about the same distance W. on the 17th.

MARS will be in the constellation Aquarius till the 27th, and in that of Pisces after that time.

He rises at the E.S.E. at the beginning; midway between E.S.E. and E. by S. at the middle, and at E. by S. at the end of the month; on the 1st at 3h. 32m.; on the 15th; at 2h. 0m., and on the last day at 1h. 32m. A.M. He souths on the 1st and last days, at 7h. 24m., and 6h. 48m. A.M., at the altitude of 26° and 32° respectively.

On the 1st, he is situated in an imaginary line drawn from the Pole Star to Alpha Aquarii, and continued 13° from the latter star. On the 22nd, a line from Beta Pegasi through Alpha Pegasi (the western pair of stars forming the

square of Pegasus) continued to the distance of 23° from Alpha Pegasi indicates the place of the Planet, and after this time he is moving eastward.

JUPITER will be in the constellation Taurus all this month. He sets about 3° N. of the N.W. by N. point of the horizon; on the 1st, at 10h. 40m. P.M., on the last day, at 9h. 15m. P.M. He souths at 2h. 30m. P.M., on the 1st day, and at 1h. P.M. on the last day.

RELATIVE SITUATION OF VENUS AND JUPITER WITH RESPECT TO THEMSELVES AND TO NEIGHBOURING STARS, ON MAY 6.

RELATIVE SITUATION OF VENUS TO NEIGHBOURING STARS ON MAY 31.



Beta Tauri



Venus

Place of Jupiter.

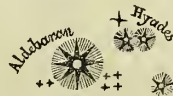


Castor



Pollux

Venus



Aldebaran



Hyades

Venus is drawn on a scale of 40' to an inch. The place of Jupiter is only indicated as if drawn it would give the appearance of overlapping Venus, whilst there is some distance between them. The apparent size of Jupiter is the same as represented in last month.

On the 1st, he is a little eastward of the position he occupied the last day of April; about the 20th, he will be in the Milky Way, and on the last day he will have passed about one-third of its breadth. From the middle to the end of the month he is situated about 23° N. of the three stars in Orion.

SATURN rises from 2° to 3° south of the E. by S. throughout the month; on the 1st, at 2h. 59m. A.M., and on the last day at 1h. 5m. A.M. He souths at an altitude of 30°; on the 1st, at 8h. 16m. A.M., and on the last day at 6h. 22m. A.M. He is situated as in April, except that he will have moved 1° nearer to Alpha Pegasi, and the same distance further from Fomalhaut. From the middle of the month, to the end, he is very nearly stationary among the stars.

TIMES OF THE SOUTHING, &c. OF THE PRINCIPAL FIXED STARS WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Star's Name.	Magnitude.	Time of south- ing in the evening of the 1st Day.		Height in degrees above the horizon. S (South). N (North).	Setting.	
		H.	M.		Number of hours from setting.	Point of the horizon.
Alpha Ursa Majoris	1	8	17	79°N	Never Sets	
Beta Leonis	2	9	4	54s	7½	Near W.N.W.
Spica Virginis	1	10	40	28s	5	Near W. by S.
Arcturus	1	11	32	58s	7½	N.W. by W.

POSITIONS OF THE CONSTELLATIONS RISING, ON THE MERIDIAN, AND SETTING ON THE 1st. DAY AT 10h. P.M.

Constellations Rising.	Constellations on the Meridian	Constellations Setting.
Lacerta in N.N.E.	The body of Andromeda near the N. horizon	The feet of Andromeda N. by W.
Vulpecula et Anser in N.E. by E.	Cassiopeia, 18° above N. horizon	Medusa's head in Perseus, in N.N.W.
Aquila near E. by N.	Polaris	The horns of Taurus in N.W.
The legs of Ophiuchus in E.S.E.	The tail of Ursa Major, between Polaris and the Zenith	The head of Orion in W. N.W.
The head of Scorpio in S.E. by E.	The fore-legs of Canes Venatici, 70° above the S. horizon	The head and chest of Monoceros, in the W.
The head of Centaurus in S. by E.	Virgo, 40° above the S. horizon	
	The tail of Corbans, 25° above the S. horizon	

Days of the Month.	Length of Day, or number of hours between Sun-rise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Day-break, or beginning of Twilight.	Time of Twilight ending.
	H. M.	H. M.	H. M.	H. M.
1	14 46	7 1	2 4	9 52
6	15 3	7 18	1 45	10 10
11	15 19	7 34	1 25	10 28
16	15 34	7 49	1 2	10 52
21	15 48	8 3	0 30	11 51
26	16 1	8 16	No real Night, but constant Twilight	
31	16 11	8 26		

## JUPITER'S SATELLITES.

## Eclipses of

Are not visible, Jupiter being too near to the Sun.

## OCCULTATIONS OF STARS BY THE MOON.

Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Stars.	At the dark or bright limb of the Moon.
k Geminorum	5	D. H. M. 18 8 50 P. M. 9 40 "	Dark Bright
Zeta 3 Libræ	6	28 7 48 P. M. 8 38 "	Dark Bright
Zeta 4 Libræ	6	28 9 4 P. M. 10 15 "	Dark Bright
Chi Ophiuchi	5	29 9 46 P. M. 10 4 "	Full Moon nearly

May 5d. 8h. P.M., the 2nd, 3rd, and the 4th Satellites of Jupiter are near together, and W. of the Planet: the 1st Satellite at the same time is E. and near the Planet.

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	7d. 10h. 49m. P.M.	14 3 23 P.M.	22 1 59 A.M.	30 2 46 A.M.	11d. At Midnight	23 9 P.M.
LAST QUARTER	1	6	11	16	21	26
NEW MOON	1	6	11	16	21	26
FIRST QUARTER	1	6	11	16	21	26
FULL MOON	1	6	11	16	21	26
PERIGEE	1	6	11	16	21	26
APOGEE	1	6	11	16	21	26

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	0h. 55m	2° 45'	4h. 45m	23° 41'	22h. 0m	13° 59'	5h. 6m	23° 36'	22h. 51m.	9° 5'	0h. 59m	5° 37'
6	1 18	5 0	5 11	24 31	22 14	12 48	5 11	22 42	22 53	8 57	1 0	5 43
11	1 44	7 46	5 37	25 4	22 28	11 36	5 15	22 48	22 54	8 50	1 1	5 43
16	2 13	10 55	6 3	25 20	22 41	10 22	5 20	22 53	22 55	8 44	1 2	5 54
21	2 47	14 19	6 29	25 18	22 55	9 6	5 25	22 58	22 56	8 38	1 2	5 59
26	3 25	17 45	6 55	24 58	23 8	7 50	5 30	23 2	22 57	8 33	1 3	6 4



## May Anniversary.



THE RESTORATION OF KING CHARLES II.

## THE RESTORATION OF KING CHARLES II.

THIS important event in our national history has been so minutely described by the diarists of the time, and their accounts have been so often quoted, that we shall content ourselves with chronicling a few of the leading details.

Pepys, the quaint and garrulous Secretary of the Admiralty, has left us the liveliest record of the incidents immediately preceding the Restoration. On this occasion he appears to have accompanied Sir Edward Montagu, afterwards Earl of Sandwich, as secretary, in the fleet which brought home the King. When the House of Commons voted his Restoration, they also voted that £50,000, "to be borrowed of the City," should be given to the Sovereign for the supply of his immediate necessities; and how greatly he stood in need of this supply may be gathered from the following entry of Pepys, under May 17, 1660: "This afternoon Mr. Edward Pickering told me in what a sad poor condition for clothes and money the King was, and all his attendants, when he came to him first from my lord, *their clothes not being worth forty shillings, the best of them*; and how overjoyed the King was when Sir J. Grenville brought him some money—so joyful that he called the Princess Royal (Mary, eldest daughter of Charles I.) and the Duke of York to look upon it, as it lay in the portmanteau before it was taken out."

Admiral Sir Edward Montagu had received orders from the Council of Parliament to bring over the King, and accordingly he sailed for the Hague, where, on the 21st of May, Charles and his suite were received on board Montagu's ship (the name of which, on the same day, he altered to the *Charles*), "amidst infinite shooting of guns;" and after dinner the fleet weighed anchor, and set sail for England. It is interesting to read how Pepys had previously been through the fleet to proclaim the King, and of the joyous reception he had met with from every ship; how the heart of the staunch Royalist must have then leapt with joy. Then, with what minuteness he relates the conduct of the King on the passage; how restlessly he walked up and down, "very active and stirring;" how, upon the quarter-deck, he fell into discourse of his escape from Worcester, where it made poor Pepys "ready to weep to hear the stories that he told of his difficulties that he had passed through; of his travelling four days and three nights on foot, every step up to his knees in dirt, with nothing but a green coat and a pair of country breeches on, and a pair of country shoes that made him so sore all over

his feet that he could scarce stir; yet he was forced to run away from a miller and other company that took them for rogues." On the same evening Pepys heard some of the suite "talking of more of the King's difficulties, as how he was fain to eat a piece of bread and cheese out of a poor body's pocket" &c.

On the 25th Charles landed at Dover; "the King and the two Dukes (of York and Gloucester) did eat their breakfast before they went, and there being nothing but ship's diet they eat of nothing else but peas and pork, and boiled beef." Pepys continues, "Dr. Clerke, who eat with me, told me how the King had given £50 to Mr. Shepley, for my lord's servants, and £300 among the officers and common men of the ship. Great expectation of the King making some knights, but there was none. About noon (though the brigantine that Beale made was then ready to carry him), yet he, the King, would go in my lord's barge with the two dukes. Our captain steered, and my lord went along bare with him. I went, and Mr. Munnell, and one of the King's footmen, and a dog that the King loved, in a boat by ourselves, and so got on shore when the King did, who was received by General Monk with all imaginable love and respect at his entrance upon the land at Dover," where he did not stay, but got into "stately coach there set for him, and so away through the town towards Canterbury."

Two days afterwards Admiral Montagu was invested with the George and Garter on board his own ship, as General Monk had also been at Canterbury on the preceding day. The King entered London on his birthday, May the 29th, and "with him," says Evelyn, in his "Diary," under that date, "a triumph of about 20,000 horse and foot, brandishing their swords and shouting with inexpressible joy; the way strewn with flowers, the bells ringing, the streets hung with tapestry, fountains running with wine; the mayor, aldermen, and all the companies in their liveries, chains of gold, and banners; lords and nobles clad in cloth of silver, gold and velvet; the windows and balconies all set with ladies; trumpets, music, and myriads of people flocking even so far as from Rochester, so as they were seven hours in passing the city, even from two in the afternoon till nine at night." "I stood in the Strand and beheld it," continues Evelyn "and blessed God." Such a scene of impressive pageantry our artist has attempted to represent in the above picturesque engraving.



## MAY.

MAY is proverbially the month of flowers. The hawthorn, the blackthorn or sloe, the horse chestnut, and many other ornamental trees and shrubs, are now in all their beauty; and almost innumerable herbaceous plants are in full flower. Among the most conspicuous of these is the lady-smock (*Cardamine pratensis*), which grows in such profusion in moist meadows, near water, that it looks, at a little distance, like linen laid out to bleach; and hence its common English name. The marsh marigold, with its golden yellow flowers, is very abundant in marshy places, in this month; and Jack-by-the-hedge—a plant which has a strong flavour of garlic, and clusters of cruciferous white flowers—is found abundantly in the hedge banks, and affords a useful vegetable to those who like its flavour. The cotton grass (*Eriophorum vaginatum*) produces its downy seed in this month, and the places where it abounds look, at a little distance, as if covered with snow. In the gardens, the lilac, the laburnum, and the wistaria are in flower among the trees; while tulips, anemones, various kinds of ranunculus, and many other beautiful flowers, decorate the beds. Towards the close of the month, several curious wild flowers may be found, one of the most remarkable of which is that called Herb Paris (*Paris quadrifolia*). This plant, in



HEEB PARIS.

some parts of the country, is called one-berry, or true-love, from its fruit being a single purple berry, growing in the centre of a green-spreading calyx. The flowers are green, and of no beauty. The plant is only found in sheltered woody spots, and it is generally considered poisonous.

Beneath the shade,  
A beautiful herb, so rare, that all the woods  
For far and near around, cannot produce  
Its like, shoots upright, from the stalk  
Four pointed leaves, luxuriant, smooth, diverge,  
Crown'd with a berry of deep purple hue.

GRAHAM.

Another poisonous plant, which is found in great abundance at this season, is the wild chervil, also called the May-weed, or cow-parsley. It is an umbelliferous plant, with white flowers, which, Lees tells us, it produces in such abundance, as often to "completely cover and whiten over whole fields, especially in the vicinity of coppices." The white-root, or marsh-pennywort (*Hydrocotyle vulgaris*), and the red rattle (*Pedicularis sylvatica*), are found in boggy places. The common wallflower, and the curious little plant called the wandering seisor, or ivy-leaved snapdragon, grow on walls; and the greater celandine (*Chelidonium majus*) is generally found in country churchyards. This latter plant has yellow flowers and bluish-green leaves, and, when broken, its juice is yellow and glutinous. It is said, when diluted with milk, to remove white specks from the eyes; and, formerly, it was supposed to be used by swallows to make their young see, as it was supposed that the young birds, when first hatched, were blind. The plant is still called swallow-wort in many parts of the country, in allusion to this superstition; though, in the north, another plant is known by that name. Among the water plants, the fringed buckbean (*Menyanthes trifoliata*) is conspicuous, from its beautiful yellow flowers; and the water crowfoot, from its star-like flowers of silvery white. Several kinds of orchids are in flower during this month.

Birds are particularly abundant in the month of May, and nearly every bush resounds with their notes. It is indeed, perhaps, in this month that the songs of wild birds are heard in their greatest perfection; and those who are interested in the subject will be amused to find what very different sounds the same birds can produce. The call note of each bird, for instance, is quite distinct from its sharp chattering note of fear; and both, again, are quite different from the full melodious song of the male while the female is sitting on her nest. The willow warbler, which is generally heard in this month is one of the few birds that sings as it flies. It builds its nest on the ground, and the nest itself is so oddly shaped that in some parts of the country it is called an oven.

The nightingale sings through the greater part of the month of May; but, towards the close of the month, the female makes her nest, generally of oak leaves lined with dry grass, and places it on the ground, among materials of the same nature as those of which it is composed, so that it can scarcely be seen. The female lays four or five eggs, which are of a dark brown or dusky green; and, as soon as these eggs are hatched, the male ceases to sing; and, instead of doing so, makes a fearful noise like the croaking of a frog. "The croaking of the nightingale, at the end of May, and in June," says Knapp, "is not occasioned by the loss of voice; but by a change of note—a change of object. His song ceases when his mate has hatched her brood; vigilance, anxiety, caution, now succeed to harmony, and his croak is the hush, the warning of danger or suspicion, to the infant charge and the mother-bird."

The sharp shrill call of the whitethroat is generally heard early in May, and soon after, its proper song. It is a lively and interesting little bird, with a

very sweet, clear, and loud song. It lives principally upon insects, though it is sometimes found to attack cherries, currants, strawberries, and other soft juicy fruits. It is said to be easily caught in a trap baited with a living caterpillar, a common house fly, or a butterfly. When kept in a cage, it should have some fine gravel in the bottom, and plenty of water inside, to allow it to wash, which it will do two or three times a day.



THE COMMON WHITETHROAT.

During the spring, the thrush is heard nearly all day, but towards the end of May it sings principally in the morning and evening; and sometimes, it continues its song all night. It has been observed, indeed, that the thrush dislikes hot, dry weather, as much as the blackbird; and it is well known that the blackbird always sings in wet weather, and particularly in a thunder-storm. The blackbird sings early in the morning, and late in the evening, but not so late as the thrush. The woodlark and the sedge-warbler also sing in the night, during the hot weather of summer, and the hedge-sparrow and the cuckoo have been heard to call as early as three o'clock in the morning. The turtle-dove is generally heard first in the woods, in May; and about the same time is first seen the curious bird called the sandpiper or marine snipe, and also, sometimes, the pigmy curlew, from its singular and somewhat monotonous cry. This bird is elegant in its form, with very long slender legs, and a long, slender, and slightly curved beak. These birds are remarkable for a change of colour in their feathers, which is produced by a partial moult in summer; but this elegant summer plumage falls off, and the bird resumes its ordinary feathers in autumn. The sandpiper is only found near the sea, as its food consists of the small crabs and molluscs animals it finds in the sand, just on the verge of the waves. The water-hen or moor-hen (*Gallinula chloropus*), builds her nest about this time. The following interesting account of a water-hen's attachment to her young is related in Mr. Waterton's delightful *Essays on Natural History*.—"In 1826, I was helping a man to stub some large willows near the water's edge. There was a water-hen's nest at the root of one of them. It had seven eggs in it. I broke two of them, and saw that they contained embryo chicks. The labourer took up part of the nest, with the remaining five eggs in it, and placed it on the ground about three yards from the spot where we had found it. We continued in the same place for some hours afterwards, working at the willows. In the evening, when we went away, the old water-hen came back to the nest. Having no more occasion for the labourer in that place, I took the boat myself the next morning, and saw the water-hen sitting on the nest. On approaching the place, I observed that she had collected a considerable quantity of grass and weeds, and that she had put them all around the nest. A week after this I went to watch her, and saw she had hatched; and, as I drew nearer to her, she went into the water with the five little ones along with her."

The wireworm is the larva of a beetle; and in general, when a whitish-looking grub is found buried in the ground, it may be presumed to be the larva of some destructive kind of beetle, and should be destroyed.

Glowworms are very abundant in this month, and the female may always be detected at night by her light, though by day she can hardly be distinguished from a woodlouse. The male insect has wings and no light. It is properly a kind of beetle, and it was supposed to live entirely upon vegetable matter till a few years ago, when a French naturalist who had taken the larvae of some glow-worms to watch their habits, accidentally gave them a dead slug among the leaves with which he usually fed them. The next morning, when he went to look at his glow-worms, they were nowhere to be found. On turning over the leaves, however, he found, to his great surprise, that they had buried themselves in the body of the slug; and he afterwards found that his insects would eat a dead slug every day. A live snail was afterwards put to the same larva, and after a long battle they succeeded in killing it and finally devouring it.

The ephemera or Mayflies appear towards the latter end of this month. These little creatures, it is well-known, live as flies only one day; but they pass two or three years in their larvæ state. They undergo their transformations buried in the earth on the sides of ponds, the entrance to their habitation being below the surface of the water. On a warm evening towards the end of May, about sunset, these insects burst from the bank that has sheltered them, and rise in incredible numbers into the air, casting off the exuvie or skins which had enveloped them, which fall as a shower of snow as the insects rise. In less than two hours the female insects have laid their eggs, which are about eight hundred in number. These eggs are curiously glued together, so as to form two little packets, each about a quarter of an inch long, and as soon as they are laid they are deposited in the water by their parent, who dies as soon as she has performed her task.



NATIONAL SPORT, PERSIA—  
WILD ASS HUNT.

M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT				HIGH WATER At London Bridges				EQUA- TION OF TIME.	Day of the Year.
			Rises.	Sets.	DECLI- NATION NORTH.		Rises.	Souths.	Sets.		Before Sunrise. O'Clock 1h. 2h. 3h.	Moons Age.	After Sunset. O'Clock 9h. 10h. 11h.	Morning.	Afternoon.					
1	Tu	<i>St. Nicomede</i>	3 51 8	4 22 0		10 2	Morning	6 10			18				3 20	3 39	2 36	152		
2	W	Arcturus Souths at 9h. 26m. P.M., 58 deg. high	3 50 8	5 22 9		10 43	2 36	7 14			19				4 0	4 20	2 27	153		
3	Th	<i>Corpus Christi</i>	3 50 8	6 22 17		11 21	3 30	8 23			20				4 40	5 0	2 18	154		
4	F	$\eta$ Bootis Souths 8h. 56m. P.M.	3 49 8	7 22 24		11 50	4 24	9 36			21				5 20	5 45	2 8	155		
5	S	<i>St. Boniface</i>	3 49 8	8 22 31		Morning	5 16	10 51			22				6 12	6 40	1 58	156		
6	S	1ST S. AFT. TRIN.	3 48 8	9 22 37		0 19	6 8	Afternoon			23				7 8	7 40	1 48	157		
7	M	$\alpha$ Corona Bor. Souths 10h. 25m. P.M.	3 47 8	10 22 44		0 48	7 0	1 25			24				8 10	8 48	1 37	158		
8	Tu	Spica Virginis Souths at 8h 10m. P.M., 58 deg. high	3 47 8	11 22 49		1 15	7 52	2 41			25				9 24	9 55	1 26	159		
9	W	Sun in Gemini; on the 21st passes into Cancer	3 46 8	12 22 55		1 44	8 45	3 58			26				10 30	11 2	1 14	160		
10	Th		3 46 8	12 23 0		2 19	9 40	5 12			27				11 36		1 3	161		
11	F	<i>St. Barnabas</i>	3 45 8	13 23 4		2 56	10 35	6 22			28				0 7	0 35	0 51	162		
12	S	$\alpha$ Serpentis Souths at 10h. 14m. P.M.	3 45 8	14 23 8		3 41	11 31	7 26			29				1 3	1 30	0 38	163		
13	S	2ND S. AFT. TRIN.	3 45 8	15 23 12		4 32	Afternoon	8 20			30				1 53	2 20	0 26	164		
14	M	$\alpha$ Herculis Souths 11h. 37m.	3 45 8	16 23 15		5 24	1 20	9 8			1				2 42	3 0	0 14	165		
15	Tu	Antares Souths at 10h. 45m. P.M., 12 deg. high	3 44 8	16 23 18		6 28	2 12	9 47			2				3 25	3 45	0 1	166		
16	W	$\alpha$ Ophiuchi Souths 11h. 45m.	3 44 8	16 23 21		7 32	3 1	10 18			3				4 5	4 25	Add.	167		
17	Th	<i>St. Alban</i>	3 44 8	16 23 23		8 37	3 47	10 46			4				4 44	5 3	0 25	168		
18	F	Battle of Waterloo	3 44 8	17 23 25		9 42	4 32	11 11			5				5 25	5 45	0 38	169		
19	S	The Sun rises 4 deg. N. of N.E. by N.	3 44 8	18 23 26		10 44	5 15	11 36			6				6 5	6 23	0 51	170		
20	S	3RD S. AFT. TRIN.	3 44 8	18 23 27		11 47	5 57	11 57			7				6 50	7 8	1 4	171		
21	M	Summer Solstice	3 44 8	18 23 27		Afternoon	6 39	Morning.			8				7 35	8 0	1 17	172		
22	Tu	Summer commen.	3 45 8	19 23 27		1 53	7 23	0 19			9				8 30	9 3	1 30	173		
23	W	Midsummer Eve	3 45 8	19 23 27		2 55	8 7	0 44			10				9 35	10 4	1 43	174		
24	Th	Midsummer Day	3 45 8	19 23 26		4 0	8 54	1 12			11				10 35	11 7	1 55	175		
25	F	Birth of John the Baptist	3 46 8	18 23 25		5 5	9 44	1 42			12				11 37		2 8	176		
26	S	Geo. IV. died, 1830	3 46 8	18 23 23		6 5	10 36	2 19			13				0 5	0 30	2 21	177		
27	S	4TH S. AFT. TRIN.	3 46 8	18 23 21		7 4	11 31	3 5			14				0 52	1 15	2 33	178		
28	M	Q. Victoria c. 1838	3 47 8	18 23 19		7 57	Morning.	3 58			15				1 39	2 0	2 46	179		
29	Tu	<i>St. Peter</i>	3 47 8	18 23 16		8 42	0 27	5 0			16				2 20	2 43	2 58	180		
30	W	$\alpha$ Lyra Souths at 11h. 58m. P.M., 77 deg. high	3 48 8	18 23 13		9 21	1 23	6 9			17				3 5	3 25	3 10	181		



## JUNE.

THE MOON rises before midnight between the 1st and the 4th, and after mid-night, and before sunrise from the 5th to the 12th. She sets before midnight till the 20th. On the 1st and 2nd, she is in Aquila; on the 3rd and 4th, in Aquarius. On the 6th, she rises nearly under the western pair of stars forming the square of Pegasus; and at 4h. 6m. A.M., she enters her last quarter; on the same day at 11h. P.M., she is on the Equator and moving N., and in the constellation of Pisces. On the 7th, she is under the square of Pegasus, but nearer to the Eastern pair of stars than to the Western. On the 8th and 9th, she is in Pisces; on the 10th, in Aries, on the 11th and 12th, in Taurus. On the 13th, at 5h. 52m. A.M., is New Moon, but without an eclipse, as she is nearly 5° from the line joining the Sun and Earth. On the 14th, she is in Gemini, on the 15th and 16th in Cancer. On the evening of the 16th, her crescent will be seen in the W. after sun-set. From the 17th to the 19th, she is in Leo or Sextans. On the 17th, she is moving towards a point 5° S. of Regulus, which star she will have passed before rising on the 18th; and during the evening she will be moving from the star. On the 20th, at 1h. P.M., she is on the Equator, going southward, and evidently directing her course some degs. N. of Spica Virginis. From the 20th to the 23rd, she is in Virgo; on the 21st, she is N.W. of Spica Virginis; before sunset on the 23rd, she will have passed it; and during the night she is N.E., and receding from it. On the 24th and 25th, she is in Libra, and directing her course to a point several deg. N. of Antares. On the 26th and 27th, she is in Ophiuchus; on the former day she crosses the W. branch of the Milky Way; and before sunset on the 28th, she will have passed the E. branch; being on the 28th and 29th, in Aquila. On the 28th, at 1h. 23m. P.M., she will be full, but without eclipse, as she is 5° from the line joining the Sun and the Earth. About midnight on the 29th, she is under the three stars in Aquila, but at a considerable distance from them; and on the last day she is in Aquarius.

MERCURY, from the 1st to the 11th, is in the constellation of Taurus; from the 11th to the 25th, in that of Gemini, and on the latter day passes into Cancer.

On the 1st, he sets at 7h. 43m. P.M., at the N.W. by N. point of the horizon, before the Sun sets. On the 4th, he sets at the same time as the Sun; on the 6th, he sets at 8h. 25m. P.M., being 16m. after the Sun has set, and from this time to the end of the month he is favourably situated for observation after sunset, particularly from the 20th. On the 11th, he sets at 9h. 2m. P.M.; on the 16th, at 9h. 28m. P.M.; on the 21st, at 9h. 42m. P.M.; and on the 26th, at 9h. 56m. P.M. Between the 7th and 22nd, he sets midway between N.W. by N., and the N.W.; and after the 22nd, near the N.W. by N.

He souths on the 1st, at 11h. 48m. A.M., at an altitude of 60°; on the 15th, at 0h. 54m. at an altitude of 62°; and on the last day at 1h. 46m. A.M., at an altitude of 59°. On the 6th, he is 4° S.S.W. of Beta Tauri. On the 7th day, he is 4° S of the same star. On the 8th, he is 4° S.E. of that star. On the 9th, 10th, and 11th, he is near to Jupiter, being N.W. of him on the 9th; about 15° N. of him on the 10th; and N.E. of him on the 11th, and nearly in the centre of the Milky Way. On the 10th he is also in a line joining the Pole Star and Alpha Orionis, being 17° N. of the latter star, and 7° E. of Beta Tauri; his course being towards Castor and Pollux. On the 20th, Mercury, Castor and Pollux, form a small triangle, the Planet occupying the S.W. angle, and distant 8° from Castor, and 7° from Pollux. On the 22nd, he is 8° due S. of Castor; on the 24th, he is 4° due S. of Pollux.—During the remainder of the month he is moving eastward from those stars; and at the end he is 13° S.E. of Pollux.

RELATIVE SITUATION OF BETA, TAURI,  
MERCURY AND JUPITER ON JUNE 9.

RELATIVE SITUATION OF CASTOR,  
POLLUX AND MERCURY ON JUNE 21.

Beta Tauri



Castor



Pollux

Mercury

○ The place of Jupiter.

Mercury

Mercury is drawn on a scale of 40" to an inch. The place of Jupiter is only indicated for the same reason as that assigned in last month. By reference to the engraving in the preceding month it will be seen how very nearly Mercury is in the position that Venus was at that time.

Venus will pass from the constellation Gemini into that of Cancer on the 4th, and from the latter into Leo on the 23rd day.

On the 1st, she souths at 2h. 48m. P.M., at the altitude of 62°; and sets at 11h. 10m. P.M. midway between the N.W. by N. and the N.W. From the beginning of the year to this day, Venus has sat later and later every night; after this time

she begins to set earlier. On the 15th, she souths at 3h. 0m. P.M., at the altitude of 60°; and sets at 11h. 0m. P.M. in the N.W. by N. On the last day she souths at 3h. 7m. P.M. at the altitude of 54°; and sets at 10h. 34m. P.M. nearly midway between the W.N.W. and N.W. by N.

On the 1st, she is situated in a line from the Pole Star, passing midway between Castor and Pollux, and she is distant from Castor 8°, and from Pollux 4°. On the 2nd, she is in a line from the Pole Star to Pollux produced 4°, and after this time she is moving from these stars towards Regulus, and during the whole of the remainder of the month she is much brighter than any star near her, and she may be readily distinguished by her brightness. On the 25th, she is in a line joining the Pole Star and Alpha Hydre, being 26° N. of the latter star, and about 102° W. of Regulus.

Venus is in the neighbourhood of the Moon during the evenings of the 16th and 17th; on the former she is N.E. of the Moon by about 10°; and on the latter she is N.W. at about the same distance.

Mars will be in the constellation of Pisces till the 14th, on which day he passes into that of Cetus.

He rises on the 1st, at the E. by S.; and on the last day near the E. points of the horizon, and between those points during the month. On the 1st, at 1h. 16m. A.M.; on the 15th, at 0h. 38m. A.M.; on the 28th, he rises twice on the same day, viz., at 0h. 2m. A.M., and at 11h. 59m. P.M.; and on the last day he rises at 11h. 34m. P.M. He souths on the 1st and last days at 6h. 46m., and 6h. 5m. A.M., at the altitude of 32°, and 40° respectively.

On the 1st, an isosceles triangle is formed by Mars, Alpha Pegasi, and Gamma Pegasi, (the two southern stars forming the square of Pegasus), the Planet being 22° distant from either star. On the 16th, he is situated in a line joining Alpha Andromede and Gamma Pegasi, (the two eastern stars forming the square of Pegasus) being 31° distance from Alpha Andromede, and 17° from Gamma Pegasi; after this time the planet continues to move eastward. The Moon is W. of him on the 6th, and E. on the 7th.

JUPITER, on the 11th, will pass from the constellation Taurus to that of Gemini. He sets about 4° N. of the N.W. by N. all the month; on the 1st, at 9h. 12m. P.M.; on the 20th, at 8h. 16m. P.M., being very nearly at the same time as the Sun sets; and after this day he sets before the Sun. After the 20th day he rises before the Sun, and by the end of the month, the time of his rising precedes that of the Sun by about half an hour.

He souths on the 1st day at 0h. 58m. A.M.; on the 20th, at noon; and on the last day at 11h. 32m. P.M. During the month he is near the Sun, and this is the worst month during the year for observing him.

SATURN rises at about 2° S. of the E. by S. throughout the month. On the 1st day, at 1h. 2m. A.M.; on the 16th, he rises twice on the same day, viz., at 0h. 3m. A.M., and at 11h. 59m. P.M.; and on the last day he rises at 11h. 4m. P.M. He souths at an altitude of 30°; on the 1st day at 6h. 21m. A.M.; and on the last day at 4h. 25m. A.M. His relative position among the stars is nearly the same throughout the month, and he is situated as in May. He is 5° S. of the Moon on the 6th, at 3h. 40m. P.M.

URANUS rises at about 1° S. of E. by N.; on the 1st day, at 1h. 53m. A.M.; on the 30th day, he rises twice in the same day, at 0h. 0m. A.M., and again at 11h. 56m. P.M. He souths on the 15th day, at 7h. 34m. A.M., at an altitude of 45°.

TIMES OF THE SOUTHING, &c. OF THE PRINCIPAL FIXED STARS,  
WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Stars' Names.	Magnitude.	Time of south- ing during the evening of the 1st. day.		Height in degrees above the horizon S (South) N (North)	Setting.	
		h.	m.		Number of hours from southing.	Point of the horizon.
Spica Virginis	1	8	38	28° 3	5	Near W. by S.
Arcturus	1	9	30	58s	7½	N.W. by W.
α Coronæ Borealis	2	10	49	66s	8½	Near N.W.
α Serpentis	2	10	58	45s	6½	W. by N.
β Scorpii	2	11	18	19s	4½	S.W. by W.
Antares	1	11	41	12s	3½	S.W.

As the stars pass the meridian earlier, on every succeeding evening than they did on the preceding evening, by four minutes nearly. To find the time of passage on any day of any month, it is merely necessary to subtract from the times of passage as inserted in each month for the first day, a portion of time corresponding to the day of the month diminished by one, multiplied by four minutes.

*Example.*—Required the time of Spica Virginis Southing or passing the Meridian on the 11th day of June.

Time of passage on the 1st day from the above table is .. 8 38

10 Multiplied by 4 is 40; therefore subtract .. .. 7 58

The difference is the time of Spica Virginis southing on the 11th day nearly .. .. 7 58

Days of the Month.	Length of Day, or number of hours between Sunrise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.		Time of Day-break, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.		OCULTATIONS OF STARS BY THE MOON.				
		Decreased since the Longest Day				Eclipses of		Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.	
1	H. M. 16 13	H. M. 8 28	No real night, but Constant Twilight.			Are not visible, Jupiter being too near to the Sun.		Rho1 Sagittarii	5	{ D. H. M. 2 0 30 A. M. 1 41    "		Bright Dark
6	16 21	8 36										
11	16 28	8 43										
16	16 32	8 47										
21	16 34	8 49										
26	16 32	0 2										
30	16 30	0 4										

TIMES OF CHANGES OF THE MOON,  
And when she is at her greatest distance  
(Apogee), or at her least distance (Peri-  
gee), from the Earth in each Lnnation.

LAST QUARTER	..	6d. 4h. 6m. A.M.
NEW MOON	..	13 0 52 A.M.
FIRST QUARTER	..	20 7 32 P.M.
FULL MOON	..	28 1 23 P.M.
PERIGEE	..	8 1 A.M.
APOGEE	..	20 4 P.M.

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	4h. 16m	21° 29'	7h. 25m	24° 12'	23h. 24m	6° 17'	5h. 35m	23° 7'	22h. 58m	8° 29'	1h. 4m	6° 10'
6	5 3	23 47	7 50	23 17	23 27	4 59	5 40	23 10	22 59	8 26	1 5	6 14
11	5 50	25 2	8 14	22 6	23 50	3 42	5 45	23 12	22 59	8 25	1 6	6 18
16	6 35	25 8	8 37	20 42	0 2	2 25	5 50	23 14	23 0	8 24	1 6	6 21
21	7 16	24 16	9 0	19 6	0 15	1 9	5 55	23 16	23 0	8 24	1 7	6 24
26	7 52	22 40	9 22	17 19	0 27	0 6N	6 0	23 16	23 0	8 25	1 7	6 27



## June Anniversary.



THE FIELD OF WATERLOO.

## THE DAY OF WATERLOO.

"THE FIGHT AND THE FEAST OF VICTORY."

JUNE 18.

"Waterloo is a substantial and considerable village of clean, good, and respectable houses. St. Jean is two miles beyond, and close to the celebrated field. From old professional, as well as patriotic feeling, I chose Sergeant Cotton, late of the 10th Hussars, as my guide. He is an intelligent, spare, active, good-looking fellow, of fifty-three years of age. It is fanciful to say that the Field of Waterloo seems marked out as the scene of a great action. It is very far from a strong position, though no doubt the best the country afforded. A gently rising ground, not steep enough in any part to prevent a rush of infantry at double quick time, except in the dell on the left of the road, near La Haie Sainte; and along the crest of the hill a scrubby hedge and low bank, fencing a narrow country road. This was all! excepting Le Haie Sainte and immortal Hougoumont! That a general should have calmly and confidently waited on such a spot to receive the attack of a superior army, commanded by the Conqueror of Europe, the great master and regenerator of modern warfare, amazingly out-numbering him in cavalry—for which arm the ground was most favourable—and with 90 guns more than his own!—that he should have done this, is, perhaps, the greatest compliment that has ever yet been paid to any army."

Even on this day

There's not a corn-ear yellowing in the Sun  
—That spreads its summer lustre on the plains  
Where Death *once* gleaned his harvest,—that shall start  
To the old battle's echo!

Not a voice

From the far vineyards and tree-blossom'd farms,  
That cleaves unto it its Past of blood and fire!

Not in the sweet dreams of the Maiden's love,  
Or still contentment of the Peasant's thought,  
Stirs the fear-presence of the perish'd War!

With them,—and by the soil on which it grew—  
The Earth that 'neath its desolation groaned—  
The Sky that saw its crimson tinge the cloud—  
The storm that swept that mighty Park of Battle,  
And winged its triumph-thunders round the world  
Is as a vanished terror—smoothed away  
With its dark tracery, from the human heart,  
By forty smiling years of peaceful love!

So Waterloo is silent in the sun!  
Its fields have scarce a memory! hnt there be  
Some deep-stirred haunts of Earth—some well-marked spots,  
Into whose heart the very word is graved  
With axe of diamond and with sword of fire!

Europe hath murmured blessings to that name  
Which Peace hath sanctified; and as each year  
Brings round the day which saw its glory dawn  
May murmur blessings still; nay, all the world  
May see it flash across its memory,  
One of the meteor-marvels of its life!

But for the earth-spots which its spirit haunts  
—Steeped in its gloom or starr'd with its renown  
This day hath pageantry of double guise,  
And wakes a grave or crowns a festival!  
In France—deep shrin'd within its Gallic heart—  
Under a splendid Hospital of War,  
Temple of warriors' tombs!—swathed in the pomp  
And gorgeousness of a proud land's last homage!  
Within a Palace vault!—in mouldering state—  
Lie the bleached bones of our dead Emperor!  
The June sun of to-day has darted light  
Electric through the regions of the dead;  
And all Napoleon's earth-quaked spirit there  
Is gazing on flame lettered Waterloo!

There is a roaring tempest in that tomb!  
The blood is as a river on its floor!  
Its marble heart is filled with flame and rage—  
Hoarse thunder hooms—and clashed swords blend with shrieks—  
And as the vision swells its terrible strife,  
The grave seemed shattered by that hurst of "Charge!"  
Till there,—amid the ruins of his war,  
The madden'd Conqueror—conquered—shouts to die!

'Tis vain! the thought escaped his soul on earth,  
And now it finds its palsy in the tomb!

If its spirit may not die, but it lives hack  
Into its own survivance—to the time  
When the chain'd Exile wore away a life  
In sad inglorious fretfulness of heart,  
Weaving a crust of canker for his soul,  
Until the lonely island where he stood  
Felt the calm death wind winging to her shores,  
And, in her pity, grew the willow-mourner  
That wept so long above Napoleon's clay!

So in that Isle, which was the grave of Glory,  
And in that pomp-embazoned vault of France,  
Are two dark grieving places of the Earth,  
That cannot hear the light of "Waterloo!"

The third mark'd spot is our immortal England,  
Whose heart,—thrill'd wildly with a nation's joy—  
Leaps to the proud memorials of her fame,  
And in the lap of Peace enshrines the war  
That gave it wings and welcome!

Well, she warms  
Her lusty spirit in this Sun of June,  
That in the dazzle of its glory hatches  
The names of Wellington and Waterloo!



## JUNE.

JUNE is pre-eminently the month for flowers. The wild roses and honeysuckles are abundant in every hedge. In the woods, the butterfly orchis, and numerous other curious nearly allied plants, are to be found; while the beautiful bee orchis hangs from the limestone rocks its curiously shaped flowers, quivering in the air, as if they were really the insects they represent. In boggy places, the butterwort is found, with its oily leaves covered with the remains of very small flies; and the sun-dew, with its curious leaves looking as if fringed with gems. In wetter places will be found the water violet, with its pretty pink flowers and finely-cut leaves; the forget-me-not; and the brooklime (*Veronica Beccabunga*), which generally produces its clusters of bright blue flowers on the banks of a clear, shallow brook. Near the sea, the yellow horned-poppay has a peculiarly brilliant appearance, and its sea-green leaves look as though they had actually taken their colour from the spray which washes over them. The sea milkwort, the sea spurge, and the eryngo or sea holly, are all beautiful plants which adorn the sea shore during the month of June.

In this month, a great number of the ferns unroll their fronds; for it must be observed that ferns do not form buds like other plants, but that their leaves, or fronds, as they are properly called, when they first appear, are rolled up in a circular form, and gradually unfold. It was formerly believed that fern seed, if gathered on the eve of the Festival of St. John the Baptist (the 23rd of June), would make the bearer invisible. Ferns have no visible flowers, and their seeds are produced in clusters, called sori, on the backs of the leaves. Each sorus contains numerous thecae, and each theca encloses almost innumerable spores or seeds. The curious plant called the flowering fern (*Osmunda regalis*), has the sori, which are of a deep brown, growing on a branched spike which rises above the fronds like a spike of flowers. There are numerous other kinds of fern, all remarkable for some interesting peculiarity, but which it would take too much space to enumerate here. When ferns grow in great masses, as in Epping Forest, and Hagley Park, in Worcestershire, the effect is magnificent, particularly when the fronds are waved to and fro by the wind. The poppies are all in flower at this season, particularly the large white, or opium-bearing poppy. When the petals of the flowers of this species fall, the seed vessel will be found green and

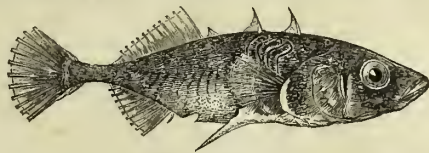


MALE FERN.

succulent; and, if it is slightly wounded, or rather scarred with a sharp knife, a milky juice will appear; and, if this is exposed to the sun till it hardens, it becomes opium. The white water lily, which has been called the queen of British flowers, is in perfection in this month. The leaves of this plant are large and handsome, and they float on the surface of the water. The flowers, if closely examined, will be found curious in a botanical point of view, from the manner in which the calyx, the corolla, and the petal-like stamens seem to change into each other. The common yellow flag (*Iris Pseud-acorus*) is a splendid marsh plant at this season, and it was formerly believed always to unfold its blossoms on the 1st of June. Various other kinds of iris ornament the gardens. The genus iris is also curious to a botanist, from the stigma of each flower spreading out into three fringed petals, under each of which a stamen lies hidden. The grasses are very interesting in June, and may be studied at this season to the best advantage. Those who have not studied the subject will be surprised to hear that there are nearly fifteen hundred different species of grasses, and that, of these, above three hundred kinds are common in pasture fields in Great Britain. Of course, the chief difference between these kinds consists in the seeds; but, when closely examined, even the leaves will be found decidedly distinct. The most beautiful of the British grasses are the feather grass (*Stipa pennata*), and the quaking grass (*Brisa media*). St. John's wort (*Hypericum calycinum*) was said always to be in flower on St. John's Day, the 24th of June. The scarlet pimpernel or shepherd's weather-glass is in flower at this season, and it takes its popular English name from the fact which has been often observed, that, if its flowers will not unfold in the morning, there is sure to be rain in the course of the day.

In this month, comparatively few birds are heard in song, for, as in most cases the young birds are hatched, the parents, both male and female, are too much occupied in attending to them to sing. In fact, the song of birds seems generally confined to the periods of pairing and hatching, as, during the latter time, the male sings as if to amuse the female while on the nest. Many birds may, however, be seen in this month; and the habits of the shrike, or butcher-bird, are so curious, as to make it well deserving attention. It is a migratory bird, seldom appearing in England till the latter end of May, and it departs early in September. It is a solitary bird, being generally found alone; and when it has killed its prey, which consists of small birds, insects, and sometimes field mice, it fixes the creature it has killed to a thorn, and then tears it in pieces with its bill. "When coming upon a bird or mouse which it has pursued for some distance, it settles its feet at the moment it strikes with its bill the cranium of the object pursued." "All small birds," says Mr. Knapp, "have an antipathy to the shrike, betray anger, and utter the moan of danger when it approaches their nest. I have often heard this signal of distress, and, cautiously approaching to learn the cause, have frequently found that this butcher-bird occasioned it. They will mob, attack, and drive it away, as they do the owl, as if fully acquainted with its plundering propensities." White mentions that a friend of his, who shot a butcher-bird, told him "that it might easily have escaped his notice, had not the outcries and chatterings of the whitethroats and other small birds drawn his

attention to the bush where it was." The redstart and the pied fly-catcher are sometimes heard singing in June; but the latter seldom longer than the first week of that month. Some birds build their nests in this month, and the commonest of these is the goldfinch. This bird makes a very elegant nest, composed of various kinds of grass, mosses, and lichens, all carefully woven together, so that not a single projecting particle is seen. The nest is then lined with wool, hair covered with thistle down, or with the cotton that falls from the catkins of the willow and the poplar. "The goldfinch," says Rennie, "is more neat in the execution of its felting than the chaffinch, though I have seen several of the nests not look so pretty; for the goldfinch's is rendered more formal, and less richly varied in colouring, by the anxiety which the bird displays not to have a single leaf of moss or lichen projecting, all being smoothly felted with wool, which, in some measure, conceals the moss; whereas, in the chaffinch's nest, the lichen usually conceals the wool. In other respects, the two nests are much the same, as well as the eggs; those of the goldfinch having their white ground more commonly tinged with blue, and having fewer and rather brighter spots, which are dark in the centre, and shade off into a thinly spread purple colour."



THE STICKLEBACK.

The curious little fish called the sticklebacks (*Gasterosteus aculeatus*) are found in great abundance in June. They are small, and, if put in a glass, extremely beautiful, the back being red, and the sides of a brilliant green, shading into a silvery white. The fins on each side of the head are very large, and as fine as gossamer; they are in perpetual motion, and extremely beautiful. The male sticklebacks are very pugnacious; and, if several are put together in one glass, the strongest will kill the others. When kept singly, and supplied daily with fresh water, with duck weed or some kind of conferva, they will live a long time. A lady at Godalming kept one for several months, and she was very much amused to find that, whenever the sun was hot, he took the trouble to spread out the conferva with which he was furnished in the shape of an umbrella, near the surface of the water, so as to afford him shade, letting it sink to the bottom again when the sun went in. A battle was once observed between the pupa of a dragon fly and a stickleback. There was first an extraordinary motion in the water of the pond, as though a stone had been thrown into it; but on closer observation the pupa and the stickleback were observed struggling with each other, like two foes grappling in mortal combat. They alternately rose to the surface, and sank again, till at last the poor fish was overpowered, and the pupa of the dragon fly, having dragged it into the soft mud near the bank, was soon perceived sucking its blood. When sticklebacks fight with each other they use the sharp spines on their backs and the lower part of their bodies as weapons; and the bodies of those that are killed, if taken out and examined, will generally be found to be dreadfully lacerated. It is only the male sticklebacks that fight, and when one has gained the victory his body appears to swell out, the lower part becomes of a brilliant crimson, the upper part of as bright a green, and the two gossamer fins on the sides quiver as if the fish were in a transport of delight.

Vipers are frequently found in woods during this month; and though their bite is venomous, it is said to be cured by taking abundance of common salad oil, and rubbing the wounded part with it. There are several kinds; but, as they differ only in colour, they are supposed to be only varieties of one species. Vipers will bear a long fast, and one is said to have been kept in a box six months without food. It is asserted, indeed, that they will never eat while in confinement.

Among the insects of this month may be mentioned the green forester moth (*Ino statice*). The wings are semi-transparent, and the larger pair are of a brilliant green. The body is of a bright copper-colour; and the hind wings are brown. The moth is a very pretty one, and has a metallic lustre in the sun. It is common in many parts of England, but has never been found in Scotland. Its caterpillar looks like a greenish brown maggot; and its chrysalis is enclosed in a close cocoon, which is generally found fastened by a number of loose silky threads to the leaves of the common thrift. The caterpillars of the vapourer and tussock moths are generally found at this season. That of the vapourer moth is very handsome; it is dark grey, spotted with red on the sides, with a black mark down the back, having three reddish spots on it towards the tail, and four tufts of yellowish hair towards the head, and long fine black hairs growing from the sides of the head, the sides of the body, and over the tail. The female vapourer has very slight wings, and is incapable of flight; but the male is a dark brown moth. The female lays her eggs on the outside of the cocoon in which she was inclosed in her pupa state. The caterpillar of the tussock moth is larger than the vapourer; the dorsal tufts are black, and the other hairs yellow. The male moth is of a bluish grey; and the female is furnished with wings. The gipsy moth, which has also a caterpillar furnished with tufts of hair, is often seen in this month. The male is brown, and the female whitish—both marked with dark brown wavy lines. The caterpillars of the tiger moth are hairy, but the hairs are not disposed in tufts. One of these, which is extremely common, is called, in Scotland, the hairy worm, and it is very abundant at this season. The large blue butterfly (*Polygonatus Arion*) is often seen in this month, and in the beginning of July, on the cliffs at Dover, and in various other places. The female has a broad blackish margin to her wings; and both species have the underside of their wings of a pale buff, so that when they sit with their wings closed, they look like another species. The Scotch argus (*P. Artaxerxes*) is another species of the same genus, which has the underside of the wings buff, marked with white and yellow spots; the upper surface is brown.

The stag-beetle is one of the largest and strongest of the British insects: when put under a glass of moderate size, it will raise it with its horns. It is generally found in the daytime, concealed in the stump of an oak or an elm tree; but in the evening it begins to fly about with a peculiar humming noise. The larva is a large thick grub of a very pale yellow. It is generally found coiled up, but when stretched out to its full length, it measures nearly four inches. It is said to remain five or six years in a larva state, and when it has attained its full size, it forms a sort of cup or oval saucer in the earth, by moistening it with its glutinous saliva, and working it till the inside is quite smooth and hard. The grub then lays itself down in the cavity it has formed, and remains about a month in a torpid state, after which it changes its skin and becomes a pupa or chrysalis, rolling itself up in a ball of earth larger than a hen's egg, in which it lies about three months, becoming a perfect insect about the last week in June or the beginning of July. In its larva state it feeds upon decayed wood; but the perfect insect is said not only to feed on wood, but to attack the leaves of the oak.





NATIONAL SPORT, AFRICA—  
LION HUNT.

M	D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.			HIGH WATER AT LONDON BRIDGE			Equa- tion of Time.	Day of the Year.
			Risks.	Sets.	DECLI- NATION North.	Risks. Afternoon	Souths.	Sets. Morning	Before Sunrise.	After Sunset.	Moons Age.	Morning.	Afternoon	Evening.		
1	Th	Sirius souths with the Sun; on August 11th it rises with the Sun. On this account the time between July 3rd and August 11th is called Dog Days	3 49	8 17	23 9	9 54	3 12	8 39			18	3 45	4 35	3 22	182	
2	F		3 49	8 17	23 5	10 25	3 12	8 39			19	4 30	4 50	3 33	183	
3	S		3 50	8 16	23 1	10 54	4 5	9 57			20	5 13	5 40	3 44	184	
4	S	5TH SUNDAY AFT.	3 51	8 16	22 56	11 21	4 58	11 15			21	6 0	6 25	3 55	185	
5	M	Trinity	3 52	8 16	22 51	11 51	5 49				22	6 55	7 20	4 6	186	
6	Tu	Antares souths at 9h. 21m. P.M., 12 deg. high	3 53	8 15	22 45	Morning.	6 42	1 47			23	7 52	8 20	4 17	187	
7	W	St. Thomas	3 54	8 15	22 39	0 21	7 34	2 59			24	8 57	9 30	4 27	188	
8	Th	Becket	3 55	8 14	22 32	0 55	8 28	4 10			25	10 5	10 40	4 36	189	
9	F	Bourbons restored, 1815	3 56	8 14	22 26	1 37	9 23	5 15			26	11 16	11 50	4 46	190	
10	S		3 57	8 13	22 18	2 23	10 17	6 12			27		0 22	4 55	191	
11	S	6TH SUNDAY AFT.	3 58	8 13	22 11	3 17	11 11	6 55			28	0 50	1 15	5 3	192	
12	M	Trinity	3 59	8 12	22 3	4 15	Afternoon	7 43			29	1 43	2 5	5 12	193	
13	Tu	Lyre souths at 11h. 7m. P.M., 77 deg. high	4 0	8 11	21 54	5 18	0 53	8 18			1	2 30	2 50	5 19	194	
14	W	Ophiuchi souths at 9h. 58m	4 1	8 10	21 46	6 23	1 41	8 48			2	3 10	3 30	5 27	195	
15	Th	St. Swithin's Day	4 2	8 9	21 36	7 27	2 26	9 14			3	3 47	4 5	5 33	196	
16	F	Beginning of the Hegira, or Mohammedan era in the year 622	4 3	8 8	21 27	8 31	3 10	9 39			4	4 23	4 40	5 40	197	
17	S		4 4	8 7	21 17	9 33	3 53	10 2			5	4 58	5 15	5 45	198	
18	S	7TH S. AFT. TRIN.	4 5	8 6	21 7	10 37	4 35	10 25			6	5 35	5 50	5 51	199	
19	M	The Sun rises N.E. by N., and sets N.W. by W.	4 6	8 5	20 56	11 38	5 17	10 47			7	6 10	6 30	5 55	200	
20	Tu	St. Margaret	4 8	8 4	20 45	Afternoon	6 1	11 13			8	6 50	7 10	5 59	201	
21	W	Aquila souths at 11h. 45m. P.M.	4 9	8 3	20 34	1 42	6 46	11 42			9	7 34	7 55	6 3	202	
22	Th	Mary Magdalen	4 10	8 2	20 22	2 48	7 34	Morning			10	8 30	9 7	6 6	203	
23	F	Sun enters Leo	4 11	8 0	20 11	3 50	8 24	0 15			11	9 40	10 13	6 8	204	
24	S	Aquila souths at 11h. 35m. P.M., 47 deg. high	4 12	7 58	19 58	4 49	9 18	0 55			12	10 47	11 20	6 10	205	
25	S	8TH SUNDAY AFT.	4 14	7 56	19 46	5 48	10 13	1 46			13	11 55		6 11	206	
26	M	Trinity—St. James	4 15	7 54	19 33	6 34	11 9	2 43			14	0 24	0 50	6 12	207	
27	Tu	Revolution in Paris 1830; lasted three days	4 17	7 53	19 19	7 17	Morning.	3 49			15	1 15	1 40	6 12	208	
28	W		4 19	7 51	19 6	7 51	0 6	5 2			16	2 3	2 25	6 11	209	
29	Th	Aquila souths at 11h. 11m.	4 21	7 50	18 52	8 27	1 2	6 20			17	2 50	3 10	6 10	210	
30	F	Aquila souths at 11h. 11m.	4 23	7 49	18 38	8 57	1 58	7 41			18	3 30	3 50	6 8	211	
31	S	Cygni souths at midnight, 83 deg. high	4 24	7 47	18 23	9 26	2 52	8 59			19	4 15	4 35	6 6	212	

It was formerly believed, when Sirius or the great Dog Star and the Sun were at or near conjunction, that all sorts of evils took place, since it was said that Sirius made the "sea to boil; wine to become sour; dogs to go mad; and all creatures to languish." These fancies were wrong, and should now be entirely removed. The name of Dog Days is still kept amongst us, but the weather is seldom more sultry during their continuance than during some other parts of summer.



## JULY.

THE MOON rises before midnight till the 5th, and after midnight from the 6th. She sets before midnight till the 21st, and after midnight from the 22nd. She is in Aquarius on the 1st and 2nd; in Pisces on the 3rd, 4th, and 5th; on the 3rd, she is directly S. of the square of Pegasus. On the 6th and 7th she is in Aries, directing her course under the Pleiades, and towards the Hyades and Aldebaran. On the morning of the 9th, she will be a few degrees W. of Aldebaran; before the morning of the 10th, she will have passed it, and will be several degrees E. of that star, and passing above Rigel. During the 8th, 9th, and 10th, she is in Taurus; on the 11th and 12th in Gemini; on the 12th at 11h. 24m. in the morning is New Moon, but without an eclipse, as she is 5 degrees from the line joining the Sun and the Earth. On the 13th she is in Cancer; on the 14th, 15th, 16th and 17th in Leo. After sun-set each evening of these days her crescent will be seen N. of W. On the 15th she is near Regulus. On the 17th, at 11h. P.M. she is on the Equator, moving S. From the 18th to the 20th, she is in Virgo, being near Spica Virginis on the 19th. On the 20th at 6h. 52m. P.M. she enters her last quarter. On the 21st and 22nd she is in Libra. On the 23rd and 24th she is in Ophiuchus, the star Antares being a few degrees S.W. of her on the 23d day; on the 24th, she is between the two portions of the Milky Way. On the 25th, 26th, and 27th she is in Aquila. On the 27th at 10h. 8m. P.M. is Full Moon, but without an eclipse, as she is then 4 degrees from the line joining the Sun and the Earth. On the 28th and 29th she is in Aquarius, and in Pisces afterwards to the end of the month. On the 31st, at 1h. P.M. she is on the Equator and moving N. MEACRY will be in the constellation of Cancer till the 9th day, and in that of Leo after that time.

On the 1st he sets at 9h. 43m. P.M., being 1h. 26m. after the Sun has set. On the 6th he sets at 9h. 37m. P.M.; on the 11th, at 9h. 21m. P.M., the Sun having set 1h. 8m. before; therefore, from the 1st to the 11th, the Planet is very favourably situated for observation, and during this time he sets at the N.W. by N. point of the horizon. On the 16th he sets at 9h. 3m. P.M., near the W.N.W.; on the 21st at 8h. 41m. P.M.; on the 26th at 8h. 17m. P.M. midway between W.N.W. and W. by N. And on the last day the Sun sets only 5 minutes before this Planet.

He souths on the 1st at 1h. 48m. P.M., at an altitude of 59°; on the 9th at 1h. 55m. P.M., at an altitude of 55°; and on the last day at 6h. 51m. P.M., at an altitude of 48°.

He is moving Eastward among the stars till the 24th, and Westward after that time.

During the first part of the month there are no bright stars near him; and he is moving from Castor and Pollux; on the 11th he is 24° S.E. of the latter star.

VENUS will be in the constellation Leo till the 29th, and in that of Virgo after that time.

Between the 1st and the 15th, she souths at 3h. 8m. P.M. at altitudes decreasing from 54° to 48°. From the beginning of the year till this time the planet has southed later and later day by day; after the 15th she souths earlier and earlier day by day, and on the last day she souths at 2h. 59m. P.M., and at an altitude of 40°.

On the 1st day she sets at 10h. 31m. P.M. near the W.N.W.; on the 11th at 10h. 9m., midway between W.N.W. and W. by N.; on the 20th at 9h. 45m. at the W. by N., and on the last day at 9h. 12m. near the W. On July 5, during the evening, she is situated very near to Regulus, being about 1 degree N. of the star, and after this day she passes eastward from it. On the 7th she is 2° E. and of the same altitude as that star. After this time she is moving towards Spica Virginis. On the 19th she is in the line produced from the Pole Star through Alpha Ursæ Majoris (one of the pointers, and the nearest to the Pole Star.) On the last day she is in a line joining the Pole Star and Beta Leonis, and at the distance of 15° South of this star. Venus is near the Moon during the evening of the 16th, being N.W. of her by 5°.

MARS will be in the constellation Cetus till the 8th, and from that time to the end of the month he is skirting the constellations of Pisces and Cetus, being alternately in the one and in the other.

He rises near the E. at the beginning; near the E. by N. at the end, and between those points during the month; on the first day, at 11h. 51m., and on the last day, at 10h. 27m. P.M. Southing on the same days at 6b. 3m. and 5h. 11. P.M. respectively, on the former day at the altitude of 40° and on the latter of 46°.

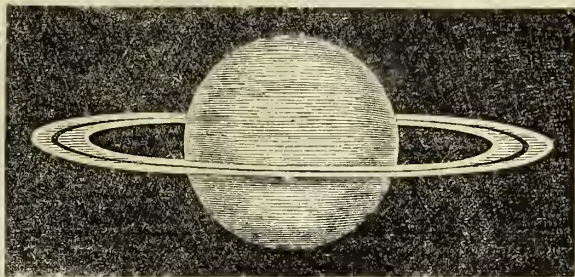
On the first, Mars, Gamma Pegasi and Alpha Arietis form a triangle, the Planet occupying the lower angle; being 18° from the former and 31° from the latter star. On the 23rd, Mars, Alpha Arietis and Alpha Ceti form a triangle, of which the planet is situated in the W. angle; being 18° S.S.W. of Alpha Arietis, and 20° E. of Alpha Ceti. During this month the Planet shines more brilliantly than any star near him.

JUPITER will be in the constellation of Gemini. He rises about 4° N. of the N.E. by N. point of the horizon; on the 1st at 3h. 15m. A.M.; and on the last day at 1h. 47m. A.M. He souths at an altitude of 62°; on the 1st at 11h. 30m. A.M.; and on the last day at 10h. 0m. A.M.

On July 1, he is situated in a line drawn from Aldebaran to 1° below Pollux; he is 26° distance from Aldebaran; 18° from Castor and 19° from Pollux. He is moving towards Castor and Pollux all the month, and on the last day he is 14° distance from both stars.

SATURN rises at about the same point of the horizon, and souths at the same altitude as in May. On the 1st he rises at 11h. 1m. P.M. and souths at 4h. 21m. A.M. on the second; on the last day he rises at 9h. 0m. P.M. and souths on the following morning at 2h. 20m. A.M. He is stationary among the stars till the 20th day; after that time he moves slowly westward, and he is situated as in last month.

TELESCOPIC APPEARANCE OF SATURN DURING THE YEAR 1847.



Scale 15" to an inch.

URANUS rises near E. by N. at 11h. 52m. P.M. on the 1st, and at 9b. 54m. on the last day. He souths at 6h. 33m. A.M., and 4h. 36m. A.M. on the same days, at the same altitude as in the last month. During the month he is nearly stationary among the stars.

## TIMES OF THE SOUTHING, &amp;c., OF THE PRINCIPAL FIXED STARS WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Stars' Names.	Magnitude.	Time of southing during the evening of the 1st. day.		Height in degrees above the horizon. S(South), N(North).	Setting.	Num. of hours from southing.	Point of the horizon.
		H.	M.				
Alpha Corona Borealis	2	8	50	66°s	8½		N.W.
Alpha Serpentis	2	8	59	45s	6½		W. by N.
Beta Scorpi	2	9	18	19s	4½		S.W. by W.
Antares	1	9	42	12s	3½		S.W.
Beta Draconis	2	10	49	89s	Never Sets		
Alpha Ophiuchi	2	10	50	51s	7½		W.N.W.
Alpha Lyre	1	11	54	77s	Never Sets		

## POSITION OF THE CONSTELLATIONS RISING, ON THE MERIDIAN, AND SETTING ON THE 1st. DAY AT 10h. P.M.

Constellations Rising.	Constellations on the Meridian	Constellations Setting.
Medusa's head in Perseus in N.N.E.	Auriga 20° above N. horizon	The heads of Gemini in N.W. by N.
Triangulum in N.E. by N.	Camelopardalis 30° above N. horizon	Cancer in N.W.
The N. fish of Pisces in N.E.	Polaris	The fore-legs of Leo in W.N.W.
The Wing of Pegasus in E.	The body of Draco, between the Pole Star and the Zenith	Sextans in W.
The shoulders of Aquarius in E. by S.	Hercules, 60° above S. horizon	The wings of Corvus in S.W. by W.
The head of Capricornus in S.E. by E.	Ophiuchus, 50° above S. horizon	Centaurus in S.W. by S.
The body of Sagittarius in S.E. by S.	The tail of Scorpio, 20° above S. horizon.	Lupus in S. by W.

Days of the Month.	Length of Day, or number of hours between sunrise and sunset.	Number of Hours and Minutes the Day has decreased since the Longest Day.	Time of Day-break, or beginning of Twilight.	Time of Twilight Ending.
1	16 23	0 6	H. M.	H. M.
6	16 22	0 12	No real Night, but constant Twilight.	
11	16 15	0 19		
16	16 5	0 29		
21	15 54	0 40		
26	15 33	0 56	0 59 A.M.	11 9 P.M.
31	15 23	1 11	1 24	10 47

## JUPITER'S SATELLITES.

Eclipses of
Are not visible, Jupiter being too near to the Sun.

## OCULTATIONS OF STARS BY THE MOON.

Names of the Stars.	Magnitude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
z 1 Aquarii	6	P. H. M. 1 1 50 A. M. 2 25 "	Bright Dark
63 Tauri	6	9 1 41 " 2 30 "	Bright Dark
			The Moon is at this time a narrow crescent

## TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth, in each Lunation.

	Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
LAST QUARTER	..	5D. 8h. 42m. A.M.	1	8h. 23m	20° 36'	9h. 43m	15° 23'	0b. 39m	1° 19'	6h. 5m.	23° 17'	23h. 0m.	8° 27'
NEW MOON	..	12 11 38 A.M.	6	8 49	18 16	10 4	13 19	0 51	2 31	6 10	23 16	22 59	8 30
FIRST QUARTER	..	20 0 52 P.M.	11	9 9	15 54	10 23	11 9	1 3	3 40	6 15	23 15	22 58	8 34
FULL MOON	..	27 10 8 P.M.	16	9 24	13 41	10 42	8 54	1 14	4 46	6 20	23 14	22 58	8 39
PERIGEE	..	3 1 A.M.	21	9 32	11 51	11 0	6 36	1 26	5 50	6 25	23 11	22 58	8 44
APOGEE	..	18 10 A.M.	26	9 32	10 39	11 17	4 17	1 36	6 51	6 29	23 9	22 57	8 50
PERIGEE	..	30 9 A.M.											



## July Anniversary.



KING JOHN SIGNING MAGNA CHARTA.

## SIGNING OF MAGNA CHARTA.

THE 2nd of July was the day appointed to be observed as a national holiday, for thanksgiving and joy, by those noble barons who so resolutely and successfully defended the rights of the people, against the oppression, duplicity, and immorality of the universally hated John; and forced him to sign and concede on the 15th day of June, 1215, "this great charter of English liberties."

King John and the Barons met according to a previous arrangement in a meadow between Staines and Windsor, adjacent to the Thames, called Runnymede, and this meadow, which has for ages been regarded as the place where the great charter was signed, or rather sealed, is in the parish of Egham. It has been stated, however, that although the conferences between the opposite parties may have been held at Runnymede, yet the actual scene of the ratification of the covenant was an island in the Thames, still known by the name of Charter Island, which is not within Surrey, but belongs to the parish of Wraysbury, in Buckinghamshire. The fallacy of this assertion is easily proved, for Runnymede is expressly named in the King's subscription to the charter itself, as the place where it was signed. The words are—"in *Prato quod vocatur Runnimeid' int' Windleshor' & Stanes*," as may be seen in an original copy of the charter, preserved among the archives of Lincoln Cathedral. The "Carta de Forseta," which was granted by John on the same day, was also signed at Runnymede. The ceremony took place, not in any house, but in the open field; the assembly continued for some days; but it was no sooner dissolved than the King threw off the mask, which, with consummate hypocrisy, he had worn during the proceedings. Lingard says, that "in a paroxysm of rage, he cursed the day of his birth, gnashed his teeth, rolled his eyes, gnawed sticks and straws, and acted all the freaks of a madman."

This charter is often regarded as the constitutional basis of English liberties; but, in many of its provisions, it seems to have been only a declaration of rights which had been enjoyed in England before the Conquest, and which are said to have been granted by King Henry I. on his accession. However, if it did not properly found the liberties which the English nation enjoys, or if it were not the original of those privileges and franchises which the barons (or the chief tenants of

the crown, for the names here are equivalent), ecclesiastical persons, citizens, burgesses, and merchants enjoy, it recalled into existence, it defined, it settled them, it formed in its written state a document to which appeal might be made, under whose protection any person having interest in it might find shelter; and which served, as it were, a portion of the common law of the land, to guide the judges to the decision they pronounced in all questions between the King and any portion of the people.

The names of the chiefs who gained this grand concession from the King are preserved in the charter itself. The first name is that of Robert Fitz Walter, who belonged to the great family of Clare. Next to him come Eustace de Vesel, Richard de Percy, Robert de Roos, Peter de Brus, Nicholas de Suteville, Socier de Quenci, Earl of Winchester, the Earls of Clare, Essex, and Norfolk, William de Mowbray, Robert de Vere, Tulk Fitz Warine, William de Montacute, William de Beauchamp, and many others of families long after famous in English history, the progenitors of the ancient baronial houses of England.

Magna Charta has been painted in a great number of forms; there are fac-similes of a copy of it which was made at the time, and still exists in the British Museum, and another preserved at Lincoln, already mentioned. Of this charter the late Board of Commissioners of the Public Records caused to be engraved and published an exact fac-simile, and it will be found printed and translated in the first volume of "The Statutes of the Realm." Long after the charter was granted, to keep the rights thus guaranteed fully in the eyes of the people, a copy was sent to every cathedral church, and read publicly twice a year.

Blackstone gives a satisfactory abridgement of the charter in his "Commentaries;" we have, besides, an express treatise on it. It was called Magna Charta, or the Great Charter, not on account of its extent, for a single page of parchment, measuring 20½ inches by 14½, contains the whole of its privileges; but because it recorded so many ancient rights of the nation, and abolished so many unjust oppressions. The finest and most perfect original of the charter is that at Lincoln. For popular gratification, the charter has been lithographed, and published at a moderate price.



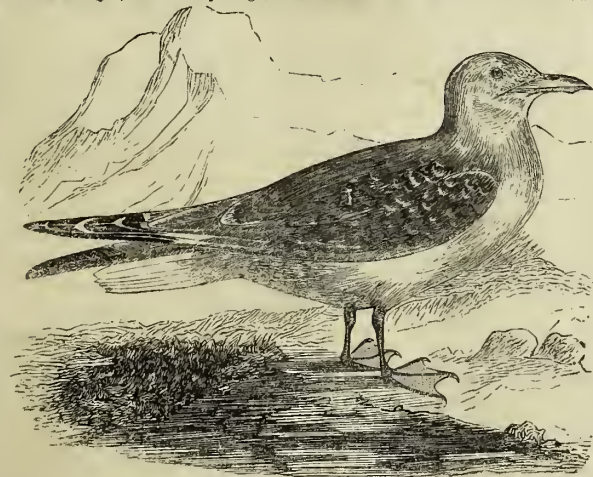
## JULY.

In July, most of the succulent plants come into flower, such as the various kinds of Sedum, and house-leek; also, the snapdragon and various kinds of Labiate, and nearly all the Compositæ. It has been observed that the flowers in this month are generally yellow or red. In July is frequently found the curious parasite called broom-rape, growing from the roots of the beech and other trees. The stem of this plant is purple, and the flowers are lightish brown; it has also light brown scales, which serve instead of leaves. Another curious parasitical plant, which is found at this season, is the Cuscuta or dodder, which twines itself round the stems of clover, heath, and other low-growing plants, so as completely to hide them. Nettles are very abundant at this season; and, as some persons have been known to express a wonder of what use such ugly stinging plants can be, it may be interesting to mention, that upwards of fifty species of caterpillar are known to feed upon the nettle, and to prefer its leaves to those of any other plant.

Sea-weeds are, however, perhaps the most interesting plants at this season, for those who happen to be staying near the sea-coast, as most of them are now in fructification. Several kinds are only found in the south and south-west of England, and the south of Ireland; but others are common in every part of Great Britain. One of the most abundant of the latter kind is the bladder fucus, or sea-wrack. The frond, or leaf, of this plant is often three or four feet long; its colour is a dark olive-green, and it is furnished with a strong midrib, occasionally branched, and numerous air-vessels, about the size of a large pea, generally arranged in pairs, opposite each other, on each side of the midrib, which explode when the frond is clapped between the hands. The sporules, or seeds, are contained in pine-shaped receptacles, which are formed at the extremity of the fronds, and which, when ripe, are of an orange colour. Large masses of this weed are thrown on shore in stormy weather. It is used for manure, and its ashes form the alkaline substance called kelp, which was formerly so much used in the manufactures of soap and glass. Now, however, the duty having been removed from barilla and salt, kelp is but little used. In Sweden, this weed is boiled, and used for feeding pigs. There are many other kinds of fucus, particularly that called buck's horn, which is very common in Scotland and the north of England, but which is seldom seen in the south; and the cut-leaved fucus, which has notched leaves and tubercles instead of air vessels. Another very beautiful sea-weed which is common in the south of England, and particularly in the Isle of Wight, is the feathered fucus (*Ptilota plumosa*). The fronds are tufted, and of a beautiful pale crimson when young, becoming of a dark brown when older. Another curious sea-weed, which has only been found in Great Britain in Freshwater Bay, in the Isle of Wight, is the cartilaginous *Gelidium*. The fronds are beautifully pinnated, and of a reddish hue. The plants when boiled form a stiff jelly, and it is said to be from a plant of this genus that the Indian swallow makes those nests which are used in China for making soup. The laver, which is so frequently eaten as a kind of vegetable, is a kind of sea-weed, growing in broad leaf-like fronds, on rocks or stoncs on the coast. It is pickled with salt, and preserved in jars, and, when brought to table, it is stewed, and eaten with oil and lemon-juice. There are two distinct kinds, the purple and the green, and several species of each. Numerous other sea-weeds are found upon the British coast, such as the chequered *Enteromorpha*, the fronds of which form dense tufts of a yellowish green; and, though each is not thicker than a bristle, yet, when examined under a microscope, it will be found so beautifully reticulated as to appear like lattice-work. The different kinds of *Ecocarpus* are found on various parts of the coast, forming tufts of green filaments. Other tufted sea-weeds belong to the genus *Polysiphonia*, but they are generally dark red, or purple.

Very few birds sing in the month of July; and the cuckoos and many other migratory birds leave England in that month. Young broods of swallows, martins, and some other birds that breed in England, are generally seen at this season. On warm summer evenings, the goatsucker may be often seen during about in search of insects, and hovering round goats while they are feeding.

The goatsucker (*Caprimulgus europæus*, Lin.) is a very curious bird. The mouth is remarkably large, and it is furnished with long hairs or bristles, which, it is supposed, are intended to prevent the small butterflies and other winged insects, on which it feeds, from escaping when once caught. On the middle claw of each foot, is a curious kind of comb, with which it is supposed the bird arranges or disentangles the fringe of its beak. This bird is known by a great many names; it is called the nightjar, from a peculiar jarring noise, not unlike the sound of a large spinning-wheel, which it makes when it flies, and which, of course, appears loudest at night, when everything around is still. It is also called the fern-owl,



THE GULL.

because it generally makes its nest among ferns; and, as it feeds on nocturnal insects, it flies at night, like the owl. Its popular name of goatsucker arises from an absurd supposition that it sucks goats, and that the animals which have been sucked by it are liable to a disease called puckeridge. The fact is, that this disease arises from a species of fly, which lays its eggs in the skin of goats, which produce the maggots that are found in the animals affected with the disease; and, as the bird hovers round the goats to catch the insects which are about to lay their eggs, it is more likely to prevent the disease than to occasion it.

Young wild ducks and teals are often found in this month; and owls are seen flitting about towards the evening. In this month gulls are very abundant on the sea-coast, and they often build on the ledge of a rock so close to the water, that it seems wonderful they can keep their eggs from falling in. They are very abundant in the north of Great Britain, but they are also found on the southern coast during the summer months, particularly between the Needle Rocks and Freshwater Gate, in the Isle of Wight. There are several kinds of gull, which are distinguished by their feathers being marked in different places with black. There is a gull near Bonchurch, in the Isle of Wight, which was brought up there nearly thirty years ago, and which, for many years, used to leave its host's every season to pair with the wild birds which visited the coast every spring; but it always returned after the breeding season was over, and would suffer itself to be played with, and fondled by the children as before, though it would not suffer itself to be touched by strangers.

Insects are now particularly abundant, and an immense quantity of moths and butterflies are seen flying about. Amongst the moths may be mentioned the lappet moth, the caterpillar of which is very large, and is remarkable for having the sides of its body furnished with fleshy appendages, from whence it has received the name of lappet. It is dark grey, or brownish, and has numerous tufts of hairs. The perfect insect is of a reddish brown; and when it is at rest it folds its wings so curiously that it looks like a dead leaf. The chrysalis looks like the hairy seed vessel of a plant.



THE CATERPILLAR OF THE HAWK MOTH.

The moth of the lobster caterpillar appears in this month. It is of a pale brown, with a lozenge-shaped dark brown mark on the head. The caterpillar is red, with very long fore-legs, and the tail curved, so as to bear considerable resemblance to a lobster. The moth of the zig-zag caterpillar appears in this month, it is small, and brown, and not remarkable for its beauty. The caterpillar is very curious. The long straight caterpillars which resemble twigs in their appearance are often found in this month; and that of the swallow-tailed moth (*Ourapteryx Sambucaria*) is exactly like a brown twig. The moth is of a very pale yellow, and the chrysalis is enclosed in a cocoon of leaves hung from a branch by silken threads. The caterpillar of the brimstone moth (*Rumia Crataegata*) has another of these twig-like caterpillars, but it is generally of an iron-grey, sometimes varying to brown; and the moth is of a brimstone yellow.



THE CATERPILLAR OF THE PUSS MOTH.

Other caterpillars of less common insects have the same twig-like appearance. The sphinx caterpillars take their name from the curious attitude of the caterpillar, which resembles that of the Egyptian Sphinx. The perfect insect of these caterpillars is the hawk moth, of which there are many species, all of which are very handsome, both in the larva and the perfect state. In this month is often found the caterpillar of the puss moth, a very curious creature, with a forked tail, and a very curious face, which is of a reddish purple, with yellowish lips, and jet black eyes. The under part of the body is green, and the upper part of a very dark purple with a white margin; the tail is black. It is generally found feeding on the willow.

A very curious little beetle is often seen on the surface of ponds about this season. Hundreds of these little creatures appear together darting and whirling about on the surface of the water, their shining wing cases and rapid motions positively dazzling the eyes. These little creatures are the whirlig beetles; but the country people call them water fleas. When they are frightened, they dart down into the water, carrying with them a small bubble of air, which looks like a drop of quicksilver attached to the body of the insect when it is seen clinging to an aquatic plant at the bottom of the water. When these beetles are seen in the water, they are always clinging to some aquatic plant, as their bodies are said to be so exceedingly light that they would rise to the surface if they did not take hold of something to keep them down. When caught, they emit a milky fluid, which has a very disagreeable smell, and which remains on the fingers a long time in spite of every effort to remove it. The eggs of these beetles are laid on the leaves of aquatic plants, and they look like small bugles. The grubs look almost like centipedes; they are of a greyish white with long slender bodies, and six legs. Towards the end of July or the beginning of August they climb up the leaves of reeds, or any robust growing plants which they find near the water, to undergo their transformations. Here each grub spins for itself a substance resembling grey paper, of which it forms its chrysalis. In this state it remains about a month, and the moment it is released, it springs into the water and darts about on its surface with the other insects.





NATIONAL SPORT, INDIA—  
TIGER HUNT.

M	D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.			HIGH WATER AT LONDON BRIDGE		EQUA- TION OF TIME.	Day of the Year
			Rises.	Sets.	DECLINA- TION NORTH.	Rises.	Souths.	Sets.	Before Sunrise.	After Sunset.	Moon's Age	Morning.	Afternoon		
			H. M.	H. M.	Deg. Min.	H. M.	H. M.	H. M.	O'Clock. 2h. 3h. 4h.	O'Clock. 5h. 9h. 10h.		H. M.	H. M.	M. S.	
1	S	Lammas Day—	4 25	7 46	18 8	9 55		Morning.	9 17		20	4 55	5 20	6 3	213
2	M	9TH SUNDAY AFTER TRINITY	4 27	7 44	17 53	10 25	4 38	Morning.	10 33		21	5 45	6 10	5 59	214
3	Tu	Antares souths at 7h. 32m.	4 28	7 43	17 38	11 0	5 31				22	6 35	7 0	5 55	215
4	W	α Herculis souths at 8h. 16m. P.M.	4 29	7 41	17 22	11 37	6 25	Afternoon	2 1		23	7 25	7 55	5 51	216
5	Th	Oyster season beg.	4 31	7 40	17 6			Morning.	7 19	3 6	24	8 25	9 5	5 45	217
6	F	Transfiguration of our Lord	4 33	7 38	16 50	0 23	8 13	4 4			25	9 40	10 20	5 39	218
7	S		4 35	7 36	16 33	1 13	9 6	4 58			26	11 0	11 40	5 33	219
8	S	10TH SUN. AFT. TRINITY	4 36	7 34	16 16	2 8	9 58	5 43			27		0 10	5 26	220
9	M		4 38	7 32	15 59	3 7	10 48	6 14			28	0 40	1 5	5 18	221
10	Tu	St. Lawrence	4 39	7 31	15 42	4 12	11 36	6 47			29	1 32	1 55	5 10	222
11	W	Dog Days end	4 41	7 29	15 24	5 15		Afternoon	7 18		30	2 15	2 35	5 1	223
12	Th	Grouse Shoot. beg.	4 43	7 27	15 6	6 19	1 6	7 42			1	2 53	3 10	4 52	224
13	F	Birth of Dowager Queen Adelaide, 1792	4 44	7 25	15 48	7 21	1 49	8 7			2	3 27	3 45	4 42	225
14	S		4 45	7 23	14 30	8 24	2 32	8 30			3	3 58	4 15	4 32	226
15	S	11TH S. AFT. TRI.	4 46	7 21	14 11	9 26	3 14	8 52			4	4 30	4 45	4 21	227
16	M	Sun rises E.N.E. and sets W.N.W.	4 48	7 19	13 53	10 29	3 57	9 17			5	5 2	5 20	4 9	228
17	Tu	Duchess of Kent born, 1786	4 49	7 17	13 34	11 31	4 41	9 44			6	5 35	5 50	3 57	229
18	W		4 51	7 15	13 14		5 27	10 15			7	6 10	6 30	3 45	230
19	Th	Lyra souths at 8h. 41m. P.M., 77 deg. high	4 52	7 13	12 55	1 35	6 15	10 51			8	6 50	7 10	3 31	231
20	F	α Aquile souths at 9h. 3m.	4 54	7 11	12 35	2 34	7 5	11 34			9	7 38	8 10	3 18	232
21	S	δ Aquile souths at 9h. 18m.	4 55	7 9	12 16	3 29	7 58	Morning.			10	8 45	9 30	3 4	233
22	S	12TH S. AFT. TRI.	4 57	7 7	11 56	4 31	8 53	0 27			11	10 5	10 40	2 49	234
23	M	Sun enters Virgo	4 59	7 5	11 35	5 7	9 49	1 28			12	11 23		2 34	235
24	Tu	St. Bartholomew	5 0	7 3	11 15	5 46	10 46	2 36			13		At Midnight.	2 18	236
25	W	α Aquile Souths at 9h. 28m. P.M., 47 deg. high.	5 2	7 1	10 54	6 22	11 43	3 52			14	0 50	1 20	2 2	237
26	Th	Pr. Albert b. 1819	5 3	6 59	10 34	6 56		Morning.	5 15		15	1 40	2 5	1 46	238
27	F	α Aquarii souths at 11h. 36m.	5 5	6 57	10 13	7 25	0 39	6 35			16	2 28	2 50	1 29	239
28	S	St. Augustine	5 7	6 55	9 52	7 56	1 34	7 56			17	3 10	3 35	1 12	240
29	S	13TH S. AFT. TRI.	5 8	6 53	9 30	8 27	2 29	9 16			18	3 55	4 20	0 55	241
30	M	St. John the Baptist he- headed. A Romish festival	5 10	6 51	9 9	9 1	3 24	10 34			19	4 40	5 0	0 37	242
31	Tu	α Cygni souths at 9h. 38m. P.M., 33 deg. high	5 12	6 48	8 48	9 38	4 19	11 38			20	5 20	5 45	0 19	243



## AUGUST.

THE MOON rises before midnight till the 4th, and after midnight from the 5th. She sets during the day and before midnight till the 20th, and after midnight from that day: she rises after Sun-set from the 27th to the end of the month. On the 1st and 2nd she is in Pisces; on the 1st a large triangle is formed by the Moon, Alpha Arietis, and Alpha Ceti, and her course is directed between these stars, but much nearer the latter than the former; on the 2nd she will be approaching the line joining them, and she is directing her course to Aldebaran. On the 2nd and 3rd she is in Aries, and on the latter day at 1h. 59m. P.M. she enters her 3rd quarter; from the 4th to the 6th in Taurus. On the 5th she is seen S.E. of the Pleiades, and approaching the Hyades and Aldebaran, which she passes before sun-rise on the 8th, and her crescent will be seen several degrees E. of them. On the 7th, at time of rising, she is in the Milky Way and in Orion. On the 8th she is in Gemini; on the 9th she is in Gemini at the time of rising, but very soon passes into Cancer, and she is in Leo from the 11th to the 13th. On the 11th day is New Moon, but without an eclipse as she is 3 degrees distant from the line joining the Sun and Earth. On the 14th she is on the Equator at 7h. A.M. and moving Southward; from the 14th to the 16th she is in Virgo, and her narrow crescent will be seen S. of W. after Sun-set. On the 15th she is directing her course evidently a few degrees above Spica Virginis; before setting on the 16th she will have passed this star, so that she is W. of it during the time she is visible. On the 17th and 18th she is in Libra, directing her course above Antares, which, on the former evening, is considerably S.E. of her, and on the latter at a much less distance. On the 19th she is in Scorpio, and early in the evening about 12° nearer the Pole Star than Antares; but the latter sets some time before the Moon; at 5h. 1m. in the morning of this day she enters her last quarter. On the 20th in Ophiuchus; from the 21st to the 23rd she is in Aquila, passing at a considerable distance S. of the three characteristic stars of this constellation. From the 24th to the 26th she is in Aquarius; on the latter day at 6h. 9m. A.M. she is full, but without an eclipse; on the 27th at 10h. P.M. she is on the Equator, and moving N.; from the 27th to the 29th she is in Pisces; in Aries on the 30th, and in Taurus on the 31st, moving towards Aldebaran.

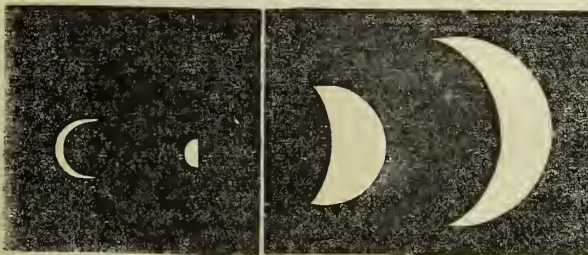
MERCURY will be in the constellation of Leo throughout the month. The Sun rises before him till the 10th, and after that time the rising of the Planet precedes that of the Sun. On the 11th the Planet rises at 4h. 28m. A.M.; on the 16th at 3h. 52m. A.M.; on the 21st day at 3h. 26m. A.M.; on the 26th at 3h. 20m. A.M.; at near the E.N.E. point of the horizon. From the 20th to the 31st, the rising of the Planet precedes that of the Sun by more than an hour, and therefore this time is favourable for observing him.

He souths on the 1st at 0h. 45m. P.M. at an altitude of 48°; and on the last day at 10h. 58m. A.M. at an altitude of 53°. He is moving Westward among the stars till the 17th, and Eastward afterwards.

On the 20th he is 21° S.E. of Pollux; and 23° N.E. of Procyon (the little Dog Star). He is moving from those stars towards Regulus, and on the 29th he is in the line joining the Pole Star and Alpha Hydre, at the distance of 24° N. of the latter star, and he is 10° W. of Regulus.

VENUS will be in the constellation of Virgo throughout the month. On the 1st she souths at 2h. 59m. at the altitude of 40°, and sets at 9h. 11m. P.M. near the W.; on the 4th day she sets nearly due W. On the 13th day she sets at 8h. 20m. P.M. near the W. by S., and on the last day she souths at 2h. 11m. P.M. at the altitude of 34°, and sets at 7h. 17m. P.M. midway between the W. by S. and W.S.W.

## TELESCOPIC APPEARANCE OF MERCURY AND VENUS AT THE BEGINNING, AND TOWARDS THE END OF THE MONTH.



MERCURY.

VENUS.

Scale 40" to an inch.

On the 1st, 2nd, and 3rd she is situated nearly in a line joining the Pole Star and Beta Leonis, and at the distance of 15° S. of this star; and after these days she is moving towards Spica Virginis all the month; and at the end of the month she is about 7° W. of that star. She is brighter than any object near her during the month; and being at her greatest brilliancy on the 28th day at 1h. 17m. A.M., she will be a very conspicuous and splendid object. On the 14th she will be near the Moon, being about 3° S.E. of her.

MARS will be in the constellation Cetus during the month. He rises at the beginning of the month near E. by N.; about the middle of the month midway between E. by N. and E.N.E., and near the latter point at the end. On the 1st at 10h. 25m. P.M.; on the last day at 8h. 53m. P.M. He souths on the same days at 5h. 10m. A.M., and 4h. 4m. A.M. respectively, at the altitude of 46° on the 1st, and of 51° on the last day.

On the 6th he is situated in an imaginary line drawn from the Pole Star to Alpha Arietis, and produced to 14°; on the 27th day he is in a line drawn from the Pole Star to Gamma Ceti, at the distance of 9° N. of the latter star, and he is at the same time 10° from Alpha Ceti. During this month he increases very much in brightness, and he becomes a conspicuous object both from his brilliancy and the redness of his colour.

JUPITER will be in the constellation of Gemini. He rises about 3° N. of N.E. by N.; on the 1st at 1h. 44m. A.M., and on the last day at 0h. 14m. A.M. On the 1st he souths at 9h. 57m. A.M., and on the last day at 8h. 25m. A.M., at an altitude of 61°.

During the first few days he is situated in a line joining the Pole Star and Sirius (the great Dog Star), and at the distance of 40° N. of this star; he is moving, as in the last month, towards Castor and Pollux, and at the end of the month he is about 9° W. of Pollux and 10° W. of Castor.

SATURN rises during the former part of the month at about 3° S. of E. by S., and during the latter part at 4° S. of the same point of the horizon; on the 1st day at 8h. 57m. P.M.; and on the last day at 6h. 57m. P.M. He souths at an altitude of 23° on the 1st day at 2h. 20m. A.M.; and on the last day at 0h. 14m. A.M. His motion is slowly Westward among the stars; at about the middle of the month he is situated about 23° from Alpha Pegasi, and 21° from Fomalhaut.

URANUS rises near E. by N. at 9h. 51m. P.M. on the 1st day; and at 7h. 52m. P.M. on the last day. He souths at 3h. 36m. A.M. on the 15th day, at an altitude of 45°.

## TIMES OF THE SOUTHING, &amp;c. OF THE PRINCIPAL FIXED STARS, WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Star's Names.	Magnitude.	Time of southing during the evening of the 1st day.	Height in degrees above the horizon S (South) N (North).	Setting.	
				Num. of hours from southing.	Point of the horizon.
Beta Draconis	2	8 47	89°N	Never Sets	Near W. by N.
Alpha Ophiuchi	2	8 48	51s	7½	
Alpha Lyrae	1	9 52	77	Never Sets	W.N.W.
Alpha Aquilæ	1	11 3	47	6½	
Alpha Cygni	1	11 56	83	Never Sets	

## POSITION OF THE CONSTELLATION'S RISING ON THE MERIDIAN, AND SETTING ON THE 1st DAY AT 10m. P.M.

Constellations Rising.	Constellations on the Meridian	Constellations Setting
Auriga in N.N.E.	The Lynx 15° to 20° above the N. horizon.	The hind legs of the Lynx N.N.W.
The feet of Perseus in N.E. by N.	The head and neck of Camelopardalus 40° above the N. horizon	Leo Minor N.W. by N.
Musca in N.E. by E.	Polaris	The rump of Leo N.W. by W.
The head of Aries in N.E.	A part of Draco, between the Pole Star and the Zenith.	
The legs of Aquarius in S.E.	Lyra 75° above the S. horizon	The shoulders of Virgo W. by N.
The hips of Sagittarius in S. by E.	The head of Sagittarius 15° above the S. horizon	Libra 15° above the S.W. Scorpio S.W. by S.

Days of the Month.	Length of Day, or number of hours between Sun-rise and Sun-set.	Number of hours and minutes the day has decreased since the Longest Day.	Time of Daybreak, or beginning of Twilight.	Time of Twilight Ending.
1	H. M. 15 21	H. M. 1 13	H. M. 1 28 A.M.	H. M. 10 43 P.M.
6	15 5	1 29	1 48 "	10 23 "
11	14 48	1 46	2 6 "	10 4 "
16	14 31	2 3	2 22 "	9 45 "
21	14 14	2 20	2 37 "	9 27 "
26	13 56	2 38	2 51 "	9 11 "
31	13 36	2 58	3 3 "	8 57 "

## JUPITER'S SATELLITES.

Eclipses of	
1st Sat.	3d Sat.
Emersion.	Emersion.
D. H. M. 20 2 32 A.M.	D. H. M. 28 1 34 A.M.
No Eclipse of the 2nd Satellite is visible during the month.	4th Sat.
	D. H. M. 31 3 57 A.M.
	Immersion
	This is the 1st Eclipse of the 4th Satellite, visible in England since November 1844

## OCCULTATIONS OF STARS BY THE MOON.

Names of the Stars.	Magnitude.	Times of disappearance and re appearance of the Star.	At the dark or bright limb of the Moon.
z 2 Aquarii	6	D. H. M. 24 8 10 P.M. 9 3 "	Dark Bright
θ Aquarii	5	26 5 10 A.M.	The Moon nearly full; the Star disappears on the horizon when the star emerges
		The Moon is below the W. side of the horizon when the star emerges	from the high est point of the Moon

## TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

LAST QUARTER ..	3d. 1h. 59m. P.M.
NEW MOON ..	11 0 28 A.M.
FIRST QUARTER ..	19 5 1 A.M.
FULL MOON ..	16 6 9 A.M.
APOGEE ..	15 3 A.M.
PERIGEE ..	27 AT NOON.

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	9h. 23m	10° 25'	11h. 37m	1° 29'N	1h. 49m	7° 59'	6h. 35m	23° 5'	22h. 56m	8° 59'	1h. 8m	6° 33'
6	9 9	11 18	11 52	0 49s	1 59	8 52	6 39	23 2	22 55	9 6	1 8	6 32
11	8 55	12 56	12 6	3 3	2 8	9 41	6 44	22 58	22 53	9 14	1 8	6 39
16	8 47	14 41	12 19	5 13	2 17	10 27	6 48	22 53	22 52	9 23	1 8	6 28
21	8 51	15 58	12 30	7 15	2 25	11 8	6 52	22 48	22 51	9 32	1 7	6 26
26	9 7	16 17	12 40	9 7	2 33	11 45	6 56	22 44	22 50	9 31	1 7	6 23





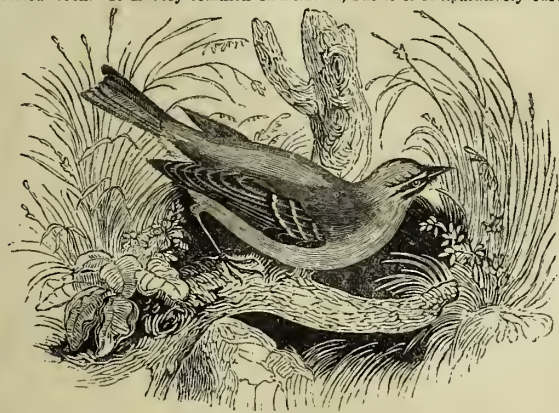
QUEEN PHILIPPA INTERCEDING FOR THE BURGASSES OF CALAIS.—(SEE NEXT PAGE.)



## AUGUST.

In this month several water-plants are in flower, particularly the beautiful water pepper (*Polygonum amphibium*). This plant grows in the water, though its terminal spikes of rosy flowers, and occasionally its long lanceolate leaves, rise above the surface, and at a little distance have the appearance of an island. The flowering rush (*Butomus umbellatus*) has also pink flowers, but it has decidedly the appearance of a water-plant; as have the bullrush and the reed-mace or cat's-tail. The dark brown club-like head of the latter plant is, in fact, a mass of female flowers, which, when ripe, become a mass of downy seeds. The yellow flowers which appear above this club are male flowers, and they wither before the seeds ripen. The white water-lily is also still found occasionally, and the yellow water-lily, or brandy bottle, as it is called from its peculiar smell. The arrow-head, with its light purple flowers; the dark purple flowers of the French willow herb, and those of the purple loose strife; and the frog-bit, with its white flowers, are all highly ornamental. In this month several of the tree lichens begin to make their appearance, particularly those growing upon the oak, some of the handsomest of which are those called Ramalina and Usnea. Some of the latter hang down from the trunks of old oaks like hair. Another very curious lichen is that called oak lungs or hazel rag (*Stictia pulmonaria*). The thallus, or leafy part of this plant, is deeply pitted, so as to afford some resemblance to the human lungs; and hence it was supposed to be highly efficacious in curing consumption. It is, in fact, useful in all diseases of the lungs, as its medicinal properties are like those of the Iceland moss. The cup-moss is another curious lichen frequently found at this season. It is common on heaths, moors, and in dry woods, in every part of the kingdom; and, when in fructification, the cups are tipped with brown in the common species, but, in some of the other kinds, the seed-vessels are of a brilliant scarlet, and the stalks are of a greyish green. Several of the sedges are in flower at this season; and, in the gardens, the white and yellow lilies are in all their beauty. On the commons, the heath is in full flower; and when rushes were used for covering the floors, it was in this month that they were cut.

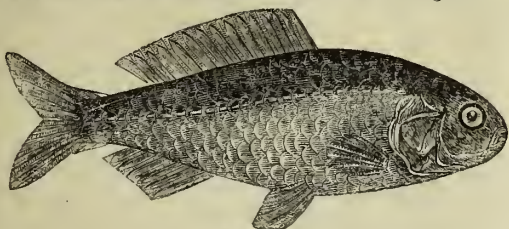
The birds in this month are more silent than in any other month in the year, but young broods of goldfinches, chaffinches and starlings, are seen crowding together. At this season, also, is occasionally seen the curious little bird called the fire-crested wren. It is very common in Belgium, but it is comparatively rare in



THE FIRE-CRESTED WREN.

Great Britain; though, no doubt, it is frequently mistaken for the golden-crested wren, to which it bears a considerable resemblance, though, when closely examined, it may be easily distinguished by the two white streaks near its eyes. It hangs its nest on the branch of a tree, and lays five eggs of a pale flesh-colour, marked with small red spots at the larger end.

The common grouse, or moor-fowl (*Tetrao scoticus*), are only found on uncultivated wastes covered with heath, on high ground. They never resort to woods, but, according to Rennie, "confine themselves wholly to the open moors—building their nests—if a few withered stems placed carelessly together, deserve that name—in a tuft of heath; they feed on mountain and bog berries, and, in defect of these, on the tops of the heath." The female lays from eight to fourteen eggs; and the young, which keep with the parent birds till towards winter, are called a pack, or brood. Grouse shooting commences on the 12th of August.



THE GOLD FISH.

Though gold fish are not natives of Great Britain, they are so frequently bred in this country as to render some notice of them interesting. The gold fish is a kind of carp, which was first brought from China to Europe in 1611, though it does not appear to have been introduced into England till nearly a hundred years afterwards. It is a curious fact in the history of the gold fish, that it will bear without injury extremes of heat and cold, as it will live equally well in a tank, in a pine-stove, and in a pond in the open air. Some years since, Professor Host, a well-known naturalist in Vienna, chanced to leave a glass globe containing a gold fish in the window of a room without a fire, during one of the coldest nights of a very severe winter. In the morning he recollected his poor fish, and, examining the glass, he found the water frozen apparently quite hard, and the fish fixed immovably in the centre. Supposing the fish to be dead, he left it in the ice; but, as it was extremely beautiful, he took a friend to look at it in the course of the day, when, to his great surprise, he found that the water had thawed naturally, from the room becoming warm by the sun, and that the fish was quite

lively, and swimming about as though nothing had happened. The friend of M. Host was so much struck with this remarkable occurrence, that he tried a similar experiment; but bringing his frozen fish to the stove to hasten its revival, the fish died. It is a well-known fact, that gold fish never breed in clear water; and it has been observed that when they do breed, the young conceal themselves among the roots of plants, in inequalities of banks, or among the faggots which may have been put in for them. A lady who happened to pull up an aquatic plant which had grown on the bank of a pond in which there were some gold fish, was quite astonished to find the roots appear alive; and on examining them, she discovered the movement to be occasioned by a great number of little dark-brown fishes which were sticking to the roots. These little fishes were the fry of the gold carp, which are taught by instinct to conceal themselves from the old fish till the golden hue begins to appear on their sides, which it does when they are about an inch long. It is said that the gold carp devour the fry of other fish, and also their own, if they see them before the golden blotches appear. When it is wished to breed gold fish in clear water in a tank or basin, a few faggots should be thrown into the water; or a sloping bank of gravel should be raised in the tank, the upper part of which is near the surface of the water. This will afford at once a situation for the old fish to deposit their spawn, and a shelter for the young fry. Some persons, when the spawn has been deposited on a faggot, remove the wood to another tank to rear the young; but they always do better, and grow faster, when bred in a pond with an earthy bottom, and in which plants grow naturally. All kinds of carp, in favourable situations, live to a great age; but gold fish can seldom be kept in glasses longer than four or five years, and they scarcely ever grow in such situations. When kept in ponds, on the contrary, they live to a great age, and attain an enormous size. Some that were kept at Seville, were known to be upwards of sixty years of age; and several in England have been known to weigh from three to five pounds. In the year 1846 a disease prevailed among the gold fish, which proved fatal to hundreds. A kind of canferva, nearly allied to the green scum found on stagnant water formed upon the fish, and occasioned their death. This plant, which is called *Achyra prolifer*, consists principally of threads so exceedingly fine as to be imperceptible to the naked eye, but which take root in the body of the fish, as the mistletoe grows on the apple tree, and in time produce a soft downy substance like mould, that first appears on the gills and tail, but gradually covers the whole body of the fish. When this extraordinary disease, if it may be so called, is discovered in its first stages, it is said that it may be stopped by sprinkling salt on the back and sides of the fish; but the application appears to cause intense pain, as the fish, as soon as it feels the salt, darts from one side to the other of the vessel that contains it, and appears to be writhing with agony.

Insects are very numerous in August, and caterpillars of several kinds that appear earlier in the season, are now seen again as if for a second brood. Among these may be mentioned the caterpillars of the cabbage butterfly, which are often found at this season, as if springing from a second brood. The caterpillars are green, with a yellow streak on each side. When young, the colours are pale and indistinct; but when the caterpillar has nearly attained its full growth, both the green and the yellow become dark and decidedly marked, and spotted with black. In August, this caterpillar forms its chrysalis, which is green, with a yellow stripe down the back. When the insect begins to form its chrysalis, it first spins a quantity of white silk, which it attaches to any object it may be near, and then fastens itself to this mass of silk by a strong girth round the centre of the body. As soon as the silk is completed, the insect reposes quietly at full length upon it, "or, rather, its body contracts in length, and becomes thicker, and at length the skin of the fore part of the back bursts, and the head of the chrysalis appears; by continual writhing of the body the slit is enlarged, and the skin pushed backwards beneath the skin of silk, and thrown off at the tail." (*Humphreys's British Butterflies*.) A beautiful green caterpillar with bands of a darker colour, is also often found at this season. It is the caterpillar of the dot moth (*Manestra Persicaria*). The moth flies at night, generally concealing itself during the day, and it is of a dark brown, with a very conspicuous white crescent-like dot on each of the fore wings. A hairy caterpillar is also found belonging to the spotted buff ermine moth. The caterpillar is brown, and thickly covered with hair, through which may be seen a narrow red line down the back, and some white marks on each side. The moth has a yellow body, and pale buff wings slightly spotted with black. The swallow-tail butterfly is frequently found in this month. The caterpillar is of a fine green, with velvet-black wings, spotted with red. It feeds on umbelliferous plants, particularly on the fennel and the carrot. It has a bright red forked-like projection on the neck near the head, which, when touched, emits a strong-smelling liquid. When this caterpillar has attained its full growth, it makes itself a chrysalis, in the same manner as the caterpillar of the cabbage butterfly does.

## AUGUST ANNIVERSARY.

(See preceding page.)

On Thursday, the 31st of August, five days after the great and ever memorable battle of Crecy, Edward drew up his army before Calais, and began his famous siege of that place, which lasted nearly a year.

As it was a place of incredible strength, he resolved not to throw away the lives of his soldiers in assaults, but to reduce it by famine. He girded it by entrenchments, and built so many wooden houses for the accommodation of his troops, that his encampment looked like a second town growing round the first. At the same time his fleet blockaded the harbour and cut off all communication by sea; the Governor obstinately refusing to capitulate, until reduced to the necessity of eating all their horses, dogs, and other animals, and nothing was left for them but to eat one another. Edward, enraged at their obstinate resistance, refused them any terms, saying that he would have an unconditional surrender. Sir Walter Manny and many harons pleaded for the men of Calais. "I will not be alone against you all," said the King. "Sir Walter, you will tell the captain that six of the notable burghesses must come forth naked in their shirts, with halters round their necks, and the keys of the town and castle in their hands: on these I will do my will, and the rest I will take to my mercy."

Six of the richest and most notable voluntarily offered themselves to save their fellow citizens. The English barriers were opened, and the six were admitted to the presence of Edward, before whom they prostrated themselves, and presenting the keys, begged for mercy, but the King rejected their prayers, and ordered their heads to be struck off. The barons and knights entreated the King to be merciful, but he would not hear them, and ordered the headsman to be summoned. But the Queen of England, who was far advanced in her pregnancy, fell on her knees, and, with tears, said, "Ah! gentle Sire, since I have crossed the sea with great danger, I have never asked anything of you; now I humbly pray for the sake of the son of the Holy Mary, and your love of me, that you will have mercy on these six men." The King looked at her, and was silent awhile; he then said, "Dame, I wish you had been somewhere else: but I cannot refuse you—I put them at your disposal." Phillips caused the halters to be taken off their necks—gave them proper clothes and a good dinner, and then dismissed them with a present of six nobles each. In a few days after this good Queen was delivered of a daughter, whom she called Margaret of Calais.

This occurred on the 3rd of August, 1347, nearly twelve months after the commencement of the siege; and exactly five hundred years have now passed away since this memorable event, so well and beautifully depicted by our Artist in the accompanying Engraving.





NATIONAL SPORT, SOUTH AMERICA—  
WILD HORSE HUNT.

M D	W D	ANNIVERSARIES, OCCU- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT			HIGH WATER			EQUA- TION OF TIME.	Day of the Year.
			Rises.	Sets.	DECLINA- TION NORTH.	Rises.	Souths.	Sets.	Before Sunrise.	After Sunset.	Moons Age.	At London Bridge	At London Bridge	Sub.		
			H. M. H. M.	H. M.	Deg. Min.	H. M.	H. M.	H. M.	O'Clock 2h. 4h. 5h.	O'Clock 7h. 8h. 10h.	Moons Age.	M. M. H. M.	M. M. H. M.	M. S.		
1	W	<i>St. Giles</i>	5 13	6 46	8 25	10 22	Morning	0 58			22	6 10	6 30	0 0	244	
2	Th	Fire of Lond. 1666	5 15	6 44	8 4	11 10	6 9	2 0			23	6 57	7 30	0 19	245	
3	F	8 Aquarii souths at 10h. 34m. P.M.	5 16	6 42	7 42	Morning	7 2	2 54			24	8 0	8 35	0 38	246	
4	S	e Pegasi souths 10h. 43m. P.M.	5 18	6 40	7 20	0 5	7 54	3 42			25	9 20	10 0	0 57	247	
5	S	14TH S.AFT. TRIN	5 20	6 37	6 58	1 3	8 45	4 17			26	10 40	11 20	1 17	248	
6	M	The Sun rises near E. by N. and sets near W. by N.	5 21	6 35	6 36	2 3	9 33	4 52			27	11 58		1 36	249	
7	Tu	<i>St. Eunuchus</i>	5 23	6 32	6 13	3 7	10 19	5 21			28	0 24	0 50	1 56	250	
8	W	<i>Nativity of the Virgin Mary</i>	5 24	6 29	5 51	4 10	11 4	5 48			1	1 15	1 35	2 16	251	
9	Th		5 26	6 27	5 28	5 12	11 47	6 12			2	1 55	2 10	2 37	252	
10	F	Fomalhaut souths at 11h. 31m. P.M., 8 deg. high	5 27	6 25	5 5	6 15	Afternoon	6 35			3	2 29	2 45	2 57	253	
11	S	a Aquarii souths 10h. 36m. P.M.	5 29	6 23	4 42	7 17	1 12	6 57			4	3 0	3 15	3 18	254	
12	S	15TH S.AFT. TRIN.	5 31	6 20	4 20	8 20	1 55	7 21			5	3 30	3 45	3 38	255	
13	M	a Pegasi souths 11h. 23m. P.M.	5 32	6 18	3 57	9 21	2 38	7 47			6	4 0	4 15	3 59	256	
14	Tu	<i>Holy Cross</i>	5 34	6 16	3 34	10 24	3 23	8 17			7	4 30	4 45	4 20	257	
15	W	<i>Ember Week</i>	5 35	6 14	3 11	11 24	4 9	8 50			8	5 0	5 20	4 41	258	
16	Th	a Aquile souths at 8h. 2m. P.M., 47 deg. high	5 37	6 12	2 47	Afternoon	4 58	9 30			9	5 35	5 55	5 2	259	
17	F	<i>Lambert</i>	5 38	6 9	2 24	1 19	5 48	10 16			10	6 15	6 35	5 23	260	
18	S	e Pegasi souths 9h. 48m. P.M.	5 40	6 7	2 1	2 12	6 41	11 13			11	7 0	7 30	5 45	261	
19	S	16TH S.AFT. TRIN.	5 42	6 5	1 38	2 58	7 35	Morning			12	8 5	8 48	6 6	262	
20	M	e Pegasi souths 10h. 37m. P.M.	5 43	6 2	1 14	3 40	8 30	0 16			13	9 30	10 10	6 27	263	
21	Tu	<i>St. Matthew</i>	5 45	6 0	0 51	4 17	9 25	1 27			14	10 35	11 30	6 48	264	
22	W	Sun in Virgo	5 47	5 58	0 28	4 50	10 21	2 44			15	At Noon		7 9	265	
23	Th	Autumn commen.	5 48	5 56	0 4	5 21	11 17	4 3			16	0 29	0 55	7 30	266	
24	F	The Sun rises E. and sets W.	5 50	5 54	South	5 52	Morning	5 25			17	1 19	1 40	7 51	267	
25	S	Sun in Libra	5 51	5 52	0 43	6 25	0 13	6 46			18	2 2	2 25	8 11	268	
26	S	17TH S.AFT. TRIN.	5 53	5 50	1 6	6 59	1 10	8 8			19	2 47	3 10	8 32	269	
27	M	<i>St. Cyprina</i>	5 55	5 47	1 29	7 35	2 7	9 26			20	3 32	3 53	8 52	270	
28	Tu	Sheriffs sworn	5 56	5 45	1 53	8 18	3 4	10 42			21	4 16	4 35	9 12	271	
29	W	<i>St. Michael</i>	5 58	5 43	2 16	9 5	4 1	11 50			22	5 0	5 20	9 32	272	
30	Th	a Cygni souths at 8h. 0m. P.M., 63 deg. high	5 59	5 41	2 39	9 59	4 56	Afternoon			23	5 45	6 10	9 52	273	



## SEPTEMBER.

**THE MOON** rises before midnight on the 1st and 2nd, and after midnight from the 3rd. She sets during the day or before midnight before the 18th; from the 19th she sets after midnight, and rises during the afternoons and evenings to the end of the month. On the 1st day she is a little E. of Aldebaran, which, with the Moon, rises in the W.S.W.; on this day at 9h. 14m. she enters her last quarter. On the 2nd she is also in Taurus, and approaching the Milky Way; on the 4th and 5th she is in Gemini; or the latter day she rises W.S.W., nearly under Castor and Pollux, which are a few degrees above the S.W. by W. She is near those stars all the morning, passing between them and Procyon. On the 6th she is in Cancer, and in Leo on the 7th, 8th, and 9th; on the 9th at 3h. 47m. she is new, but without an eclipse, as she is situated 2 degrees from the line joining the Sun and the Earth. On the 10th she is on the Equator at 2h. P.M. and moving S. She is in Virgo from the 10th to the 13th; on the 12th after Sunset her narrow crescent is seen a few degrees above Spica Virginis in the E.N.E. On the 14th she is in Libra; 15th in Scorpio, and the 16th and 17th in Ophiuchus. From the 14th to the 16th she is directing her course towards Antares, which she passes on the morning of the latter day, and during the evening of the 16th it will be some degrees S.W. of the Moon. On the 17th, at 6h. 21m. P.M. she enters her 1st quarter. On the 18th she moves nearly on the boundary of Sagittarius and Aquila, passing on the 19th the three characteristic stars in the latter at a considerable distance below them. On the 20th she is in Capricornus; on the 21st and 22nd in Aquarius, and from the 23rd to the 25th in Pisces. On the 23rd the square of Pegasus is considerably above the Moon. On the 24th, at 9h. A.M., she is on the Equator and moving N. She rises now about 35 minutes later every night, and exhibits the phenomenon of the Harvest Moon, but not in a very striking manner. This Moon rises 8 times after the Full Moon, before midnight; whereas, in March, she rose only twice after the Full Moon, before midnight; this difference arises from the different angles made by the Eclipse in the east with the horizon in these two months. From the 26th to the 30th the Moon is successively in Aries, Taurus and Gemini. (See occultation of Aldebaran below).

**MERCURY** will pass from the constellation Leo into that of Virgo on the 15th. He rises at 3h. 37m. A.M. at the E.N.E.; on the 6th at 4h. 4m. A.M.; on the 11th at 4h. 33m. A.M.; and at this time precedes the rising of the Sun by 51 minutes; and he is favourably situated for observation; on the 14th he rises E. by N; on the 16th he rises at 5h. 12m; and on the 21st day the Sun and Mercury rise together, and after this time the Sun rises before the Planet.

He souths on the 1st at 11h. 0m. A.M. at the altitude of 52°; on the 15th at 11h. 43m. A.M. at the altitude of 46°; and on the last day at 0h. 20m. P.M. at an altitude of 33°.

During the month he is moving quickly towards the Eastward. On the 4th day he is 1° N. of Regulus; and he is moving E. from that star; on the 11th he is 27° S.E. of it; and at the same time he is 11° S.W. of Beta Leonis; on the 19th he is situated 10° S. of Beta Leonis.

**VENUS** will be in the constellation Virgo all this and next month. On the 1st she souths at 2h. 8m. P.M. at an altitude of 27°; and sets at 7h. 14m. P.M. midway between the W. by S. and W.S.W. points of the horizon. On the 15th she souths at 1h. 17m. at an altitude of 25° and sets at 6h. 7m. P.M. W.S.W. On the last day she souths at noon and sets before the Sun. On October 6th she rises with the Sun, and after that time before him, and she is the morning star.

From the beginning of the year till September 7th the motion of Venus will be Eastward among the stars; between the 7th and the 17th she will be stationary, occupying, during this time, the same relative position among them; after the 17th her apparent motion will be in the contrary direction to that before the 7th; and it will be Westward among the stars.

Between the 1st and the 21st she will be situated about 7° W. of Spica Virginis, and at the end of the month she will be about 12° N. of the same star.

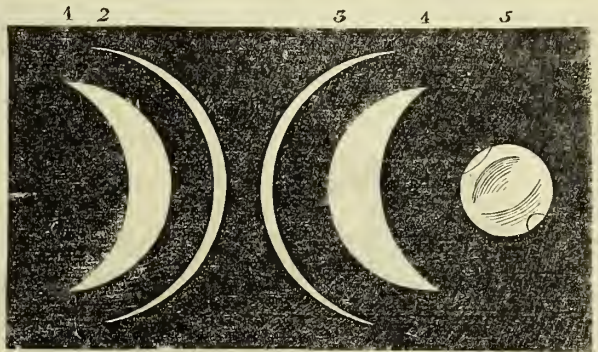
During the evening of the 11th day she will be about 10° S.S.W. of the Moon. Her appearance at the beginning of this month is shown at No. 1. in the accompanying engraving, at the end at No. 2, at the beginning of October at No. 3, and at the end of October at No. 4.

**MARS** will be in the constellation of Aries from the 1st till the end of the year. He rises near the E.N.E. till the 15th, and at that point after the 15th. On the first at 8h. 50m.; on the 15th, at 8h. 1m; and on the last day at 6h. 59m. P.M. He souths at 4h. 1m., at 3h. 19m., and at 2h. 22m. A.M., on the same days, at an altitude of 13° on each day.

From the beginning of the year to the middle of this month this planet has appeared to move Eastward among the stars; from the middle of this month to

the end he appears to be stationary, occupying the same position in the heavens relative to the fixed stars during that time. And generally he is about 10° N. of Alpha Ceti, and about 15° W. of the Pleiades. He will be, however, readily distinguished by his increasing brightness and the redness of his colour. His appearance during this and the following month is represented at No. 5 in the annexed engraving, and by comparison with the drawings of him previously given with this the great change in his apparent size will be evident.

TELESCOPIC APPEARANCES OF VENUS AND MARS DURING THE MONTHS OF SEPTEMBER AND OCTOBER.—(See above.)



Scale 40" to an inch.

**JUPITER** will be in the constellation of Gemini. He rises near the N.E. by N. point of the horizon, on the 1st at 0h. 11m. A.M.; on the 4th he rises twice on the same day, viz., at 0h. 2m. A.M., and again at 11h. 59m. P.M., and on the last day at 10h. 35m. P.M. He souths at an altitude of 61°; on the 1st day at 8h. 22m. A.M.; and on the last day at 6h. 45m. A.M. On the 1st day he is situated nearly 3° S. of the last day in August; during the month he is moving slowly towards Castor and Pollux, being on the last day 10° due S. of the former, and 6° from the latter. During the month of October he is similarly situated towards these stars.

**SATURN** rises midway between the E. by S. and the E.S.E. on every day. On the 1st day at 6h. 53m. P.M., being only 9 minutes after the sun has set; on the 3rd day the Planet rises at the same time as the Sun sets; and after this time the Planet rises before the Sun sets. On the last day he rises at 4h. 51m. P.M. He souths on the 1st day at 0h. 9m. A.M. And on the last day at 10h. 4m. P.M. His motion among the stars, and his situation, is nearly the same as in last month; the only difference being that he will have receded from Alpha Pegasi and approached Fomalhaut by 1°.

**URANUS** rises at 1° S. of E. by N. throughout the month, at 7h. 48m. P.M. on the 1st, and at 5h. 52. P.M. on the last day. He souths at 1h. 31. A.M. on the 15th.

# TIMES OF THE SOUTHING, &c., OF THE PRINCIPAL FIXED STARS WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Stars' Names.	Magnitude.	Time of southing during the evening of the 1st Day.		Height in degrees above the horizon, S (South) N (North)	Setting.	
		H.	M.		Number of hours from southing.	Point of the horizon.
Alpha Lyrae	1	7	50	77°s	Never Sets	Near W. by N.
Alpha Aquilae	1	9	1	47s	6½	
Alpha Cygni	1	9	54	83s	Never Sets	
Alpha Cephei	3	10	33	79N	Never Sets	Near W. by N.
Epsilon Pegasi	2	10	54	48s	6½	

## JUPITER'S SATELLITES.

Days of the Month.	Length of Day, or number of hours between Sunrise and Sunset.	Number of hours and minutes the day has decreased since the Longest Day.	Time of Day-break, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.						OCCULTATIONS OF STARS BY THE MOON.				
					Eclipses of						Names of the Stars.	Magni- tude.	Times of disappearance and re-appear- ance of the Stars.	At the dark or bright limb of the Moon.	
					1st Sat.			2nd Sat.							
					Immersion.			Immersion.							
	H. M.	H. M.	H. M.	H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.							
1	13 33	3 1	3 6A.M.	8 53P.M.	12 2 41 A.M.	10 1 56 A.M.			N. Tauri	6	3 0 42 A.M.	Bright			
6	13 14	3 20	3 18	8 38 "	19 4 34 "	17 4 32 "					1 38 "	Dark			
11	12 54	3 40	3 30	8 22 "	28 0 56 "				75 Tauri	6	28 10 29 P.M.	Bright			
16	12 35	3 59	3 40	8 9 "							11 8 "	Dark			
21	12 15	4 19	3 50	7 55 "					Aldebaran	1	29 2 28 A.M.				
26	11 57	4 37	3 59	7 44 "					At this time the Star will be very near the upper edge of the Moon and it may prove to be an occultation ; if so, it will disappear at a point a little to the right of the highest point of the Moon, and become visible again a few minutes afterwards.						
30	11 42	4 52	4 6	7 34 "											

At this time the Star will be very near the upper edge of the Moon and it may prove to be an occultation; if so, it will disappear at a point a little to the right of the highest point of the Moon, and become visible again a few minutes afterwards

September 7th, after midnight the four Satellites of Jupiter are E., and on the 10th day they are W. till the 2nd Satellite passes behind the Planet at 1h. 56m A.M. (as above); on the 17th day they are also W. till the 2nd Satellite passes behind the Planet at 4h. 32m. A.M. (as above).

## TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee) from the Earth in each Lunation.

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Peri- gee), from the Earth in each Lunation.		Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
			MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
			Right Ascension	Declina- tion North	Right Ascension	Declina- tion South.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion South.	Right Ascension	Declina- tion North.
LAST QUARTER	.. 1n. 9h. 14m. P.M.	1	9h. 40m	15° 1'	12h. 48m	11° 5'	2h. 41m	12° 23'	7h. 1m	22° 38'	22h. 48m	9° 52'	1h. 6m	6° 19'
NEW MOON	.. 9 3 47 P.M.	6	10 14	12 38	12 53	12 25	2 46	12 50	7 5	22 33	22 46	10 0	1 6	6 16
FIRST QUARTER	.. 17 7 21 P.M.	11	10 50	9 22	12 54	12 24	2 50	13 13	7 8	22 38	22 45	10 9	1 5	6 12
FULL MOON	.. 24 2 25 P.M.	16	11 25	5 36	12 52	13 55	2 53	13 31	7 11	22 23	22 44	10 18	1 4	6 8
APOGEE	.. 11 1 P.M.	21	11 59	1 40	12 47	13 53	2 55	13 44	7 14	22 19	22 42	10 26	1 4	6 4
PERIGEE	.. 24 9 P.M.	26	12 30	2 15s	12 33	13 14	2 55	13 53	7 17	22 14	22 41	10 33	1 3	5 59



## September Anniversary.



THE LORDS AND COMMONS AT WHITEHALL DECLARE THE THRONE VACANT BY THE FLIGHT OF JAMES.

## ABDICATION OF JAMES II.

IN the death of James the Second, which occurred at St. Germain's on the 16th September, 1701, it has been truly said that "Britain was happily delivered from the perverse and incurable dynasty of the Stuarts." James was a weak and narrow minded bigot, with a cold and ungenerous temper, and from the time he ascended the throne, seems to have acted with a steady determination to render himself absolute, and to proceed by every direct and indirect means to overthrow the established church. But these innovations in religion and government gradually united opposing interests, and a large body of the nobility and gentry concurred in an application to the Prince of Orange. All confidence being destroyed between the King and the people, it became an easy and safe invasion, and James was compelled to seek safety by flight on the night of the 13th of December, 1688. He crossed the Thames at Lambeth, and made his way with all speed to Feversham, where he embarked in a Custom-house hoy. It blowing a strong gale at the time, the master of the little vessel wanting more ballast, ran into the western end of the Isle of Sheppey, where the people seized the disguised King as a *fugitive Jesuit*, treating him with proportionate rudeness, and carried him back a prisoner to Feversham. Then he made himself known; told the rabble, who had been calling him "a hatchet-faced Jesuit," that he was their King, procured pen, ink, and paper, wrote a note to Lord Winchelsea, the Lieutenant of the county, who hastened to him to rescue him out of the rude hands of that rabble rout of fishermen, sailors, and smugglers, who took his money, but refused to let him go. Never, perhaps, did a fallen despot present so miserable a spectacle. His mind was a complete wreck: he told the mob that the Prince of Orange was seeking his life, and he screamed for a boat! a boat! that he might escape. When he was conducted by Lord Winchelsea from the public house to a private house in the town, he fell a weeping, and deplored his great misfortune in losing a piece of the wood of the true cross, which had belonged to Edward the Confessor. On the night of the 23rd of December he rose from his bed, dressed himself, and, with his natural son, the Duke of Berwick, and two or three servants, walked down to the beach and put off in an open boat. On the following morning he reached a fishing smack which had been hired for the voyage, and, passing the guard-ships at the Nore without molestation or challenge, he landed on the morning of the 25th, at the small town of Amblesense.

James was enabled in March, 1689, to make an attempt for the recovery of Ireland. The battle of Boyne, fought in June 1690, compelled him to return to France. All succeeding projects for his restoration proved equally abortive, and, on the 25th of December the lords spiritual and temporal, to the number of about ninety, who had taken their places in the House of Lords, requested William to take upon him the administration of affairs and the disposal of the public revenue

and to issue writs for a "Convention" to meet on the 22nd of January; and on the following day an assembly of such persons as had sat in Parliament in the reign of Charles II., to the number of about a hundred and fifty, together with the Aldermen of London and fifty of the Common Council, having met at St. James's pursuant to the desire of the prince, immediately proceeded to the Commons' House, and there agreed upon an address similar to that of the Lords. The prince despatched circular letters, accordingly, to the several counties, universities, cities, and boroughs; and in the meantime the country, the fleet, and all that remained of James's army, submitted quietly to his authority. In Ireland it was very different; but in Scotland men were as prompt in their obedience as in England.

The two Houses then adjourned to the 28th, on which day the Commons, having re-assembled, resolved themselves into a Committee of the whole House to take into consideration the state of the nation. Mr. Hampden was in the chair. Dolben, son of the late Archbishop of York, "was the hold man who first broke the ice, and made a long speech tending to prove that the King's deserting his kingdom without appointing any person to administer the government, amounted, in reason and judgment of law, to a demise." This opinion was taken up and defended by several other members. The Tories, including Sir Edward Seymour, who had been one of the first to join the Prince of Orange, made a vain effort to procure an adjournment; and the Committee, after a stormy debate of many hours, voted the resolution—"That King James II., having endeavoured to subvert the constitution by breaking the original contract between King and people, and, by the advice of Jesuits and other wicked persons, having violated the fundamental laws, and withdrawn himself out of the kingdom, has abdicated the Government, and that the throne is thereby become vacant." Mr. Hampden was ordered to carry up this resolution to the Lords, and to request their concurrence, which they finally gave on the 12th of February. The penances and mortifications to which James subjected himself hastened his end, and he had been dying all the summer of 1701. On Friday, the 2nd of Sept., a few days before the conclusion of the grand alliance, he was seized with a fainting fit in the chapel of the palace of St. Germain. He was pretty well the next day, but on Sunday he fell into another fit and lay for some time without life or motion. James lingered till the following Friday, the 16th of September, and then expired in the 67th year of his age. His body lay exposed four-and-twenty hours in the midst of priests and monks, who sang the office for the dead all the night through, and in the morning celebrated masses at two altars erected in the room. The body was deposited in the church of the English Benedictine monks in Paris, there to remain "till it should please God to dispose of the people of England to repair, in some measure, the injuries they did him in his life, by the honours they should think fit to show him after his death."

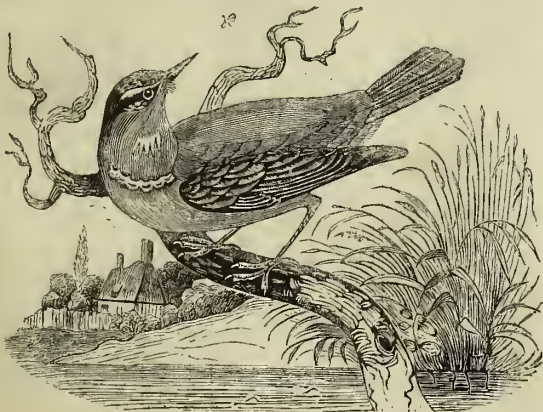


## SEPTEMBER.

In this month the autumnal flowers begin to come into blossom. The different kinds of small-flowered asters, called Michaelmas daisies, are now in flower; and the pale purple flowers, on long naked tubes, of the colchicum, or autumnal crocus, now begin to appear. In the gardens, the dahlias are in all their splendour, the *Althea frutescens*, and the hollyhocks. It is at this season that the saffron is gathered. It is the stigma of a kind of crocus (*Crocus autumnalis*), which is taken out and dried. This crocus, though it flowers in autumn, is quite a different plant from the colchicum; and it may be known by the stigma projecting, through an opening in the flower, on one side. It is cultivated in fields, on a large scale, near Saffron Walden, in Essex, and in several other parts of Great Britain.

Mushrooms, and various kinds of fungi, are in season in this month. Every fungus consists of a stem, which is called *stipes*, surmounted by a cap, or *pileus*, under which are a number of thin plates, arranged around the centre, like the radii of a star, and are called the *lamelle*, or gills, and among which are placed the *spores*, or seeds. The botanical name of the common eatable mushroom is *Agaricus campestris*; but there are several other species of *Agaricus*, which are poisonous, when eaten in a fresh state. In Russia and Poland, however, nearly all the kinds of *Agaricus* are eaten; as they are first dried, and then reduced to powder, and it is principally their acrid juice that renders them unwholesome. The true mushroom appears, when young, in the shape of a button, with a white skin coming down from the cap to the root, so as to hide both the stem and gills. As the stem grows, the white skin, which is called the veil or curtain, bursts, and the gills appear of a beautiful pink, which contrasts strongly with the whiteness of the cap. As the mushroom becomes older, the gills become of a dark liver colour, and the skin of the cap loses its whiteness and smoothness, and turns brown and rough; while, when it is still older, the rim of the cap curls up on the outside, the gills turn black, and the whole mushroom becomes perforated with insects. When the mushroom is in this state, it is called a flap, and it is unfit for any use but making into catsup. It is reckoned most wholesome just after the veil has burst, and the gills appear. Truffles are found in this month, in some parts of England, generally in beech woods. They are tubers which grow underground, like potatoes; only, as they send up no stalk, they are very difficult to find. In Germany, they train dogs and pigs to hunt for truffles; and, when these animals discover them by their smell, they begin to scratch the ground, and the truffle-hunters, digging in that place, are sure to find the tubers.

Many of the wild birds that visit England in the autumn appear in this month; and, among others, various kinds of wild ducks and geese. They come in flocks, and are very noisy in the air; their perpetual clamour being supposed to be designed to prevent them from dispersing and losing their companions. As in this month partridge-shooting begins, it may be interesting to say a few words on these well-known birds. Young partridges may frequently be seen running as soon as they are hatched, and sometimes even with the remains of the shells upon their heads. The hen partridge is very fond of her young, and "it is not uncommon to see an old partridge feign itself wounded, and run along the ground, fluttering and crying, before either dog or man, to draw them away from its helpless, unfledged young ones." Partridges are found in all parts of Great Britain, where corn is cultivated, but never at any great distance from corn-fields. The hen partridge makes no proper nest, but only scrapes a little hollow in the ground, in which she lays from twelve to twenty eggs. The young partridges in one brood generally fly together, and are called a covey. In Scotland partridges are only found in glens and valleys, while the grouse and ptarmigan are on the hills. Another species of this genus, generally called the red-legged or Guernsey partridge, is found in Suffolk, and in some other parts of England. These birds are larger than the common species; the bill, the legs, and the feet, are of a bright red, and there is a good deal of red in the plumage. They are reckoned very fine in France, but are not much admired in this country. Their habits are very different from those of the common partridge, as they frequently roost on trees, and will breed in confinement. Most of the migratory birds that leave England for the winter depart in this month; and some of those birds which remain in England during the winter, and which become silent about Midsummer—such as the thrush, the blackbird, the woodlark, and the willow-wren—resume their song in September. The male redbreasts that were hatched in spring, also begin to sing in this month, after they have moulted and acquired the red feathers on the breast. Before that period, the young are scarcely to be distinguished from those of the redstart, particularly the blue-throated kind; though after they have moulted, and the one has acquired its blue feathers, and the other its red ones, scarcely any two birds can be more distinct.



THE BLUE-THROATED REDSTART.

In this month all kinds of shell fish are in high season. Oysters, it is true, are allowed to be sold in August; but they are not considered to have attained their full flavour before September. Oysters are so common that few people think of the peculiarities of their construction, which is, in fact, very curious. The oyster

is a molluscous or soft-bodied animal, of the kind called *Acephalus*, or non-headed, as it has no distinct head. The gills, or breathing apparatus, form what is commonly called the beard of the oyster. The creature is attached by strong muscles to its shell, which, as it consists of two parts, or valves, is called a bivalve, to distinguish it from those which are in one part, like that of the snail, and which are called univalves. The mouth of the oyster is a mere opening in the body, without jaws or teeth, and its food consists of nourishing substances which may be in the water, and which are washed into the shell when it is open. Oysters attach one of their valves to rocky ground, or some fixed substance, by means of a mucilaginous liquid which soon becomes as hard as the shell. Oysters generally spawn in May, and their growth is so rapid, that in three days after the deposition of the spawn the shell of the young oyster is nearly a quarter of an inch broad, and in three months it is larger than a shilling. The animal of the oyster appears to be extremely inanimate: it fixes itself to any object that may be near, being sometimes found attached to the back of a living lobster or crab, and frequently to the roots of trees. Craw-fish, lobsters, crabs, shrimps, and prawns, though generally called shell fish, do not belong to the same class of animals as the oyster, but to the Crustacea, because they are covered with crust-like shells. They also belong to the class of animals called *Articulata*, and have their bodies articulated, that is, jointed, so that they can stretch them out or curl them up at pleasure. A crustaceous animal consists of three parts—the head, the carapace, which is covered with one entire shell, and what is popularly called the tail, which consists of seven rings, or joints. There are fourteen rings in that part of the body which is called the carapace, but they are only used when the animal changes its shell. The joints in the tail are to enable the animal to spring forward, which it does frequently when it wishes to change its position. It can also crawl, but it moves in this manner awkwardly, and in an oblique direction. The river craw-fish belongs to the same genus (*Astacus*) as the lobster, and both have long tails, which are spread out when they crawl, and numerous legs and claws, with which they can pinch severely when they wish to defend themselves. The crab has a short tail, and belongs to the genus *Cancer*. The shrimp, though it has no claws, properly so called, has two feet larger than the others, each of which has a hooked jointed nail. The prawn, which is quite different from the shrimp, is nearly allied to the crayfish, or thorny lobster. All the Crustacea have the power of renewing their claws if they are torn off at a joint, and they change their shells every year. The new shell is at first quite soft, and at that period the fish are unwholesome to eat. The females spawn in July and August, and soon after great numbers of the little Crustacea may be found swimming about in their proper forms, sometimes not more than half an inch in length.

Abundance of spiders are found at this season. Spiders are articulated animals, and possess the same power of renewing a lost limb as the crustacea. The diadem spider (*Epeira diadema*) is one of the largest of the British kinds. It is a garden spider, and is easily recognised by the beautiful little gem-like marks on its body and legs. The web of this spider is found in great abundance during the months of August, September, and October. "The top line of this web," Mr. Westwood observes, "appears to be first spun, either by attaching a thread to a neighbouring tree, and then carrying it along until it is of sufficient length, when it is attached to some adjacent object to which the spider has crawled, or by throwing out a floating line, whilst the spider remains stationary, the action of the air carrying this line on until it becomes attached to some object, when, in either case, it is doubled and redoubled until it is of sufficient strength to bear the weight of the intended fabric, together with the spider itself. The other outer threads of the frame work are then added, and then cross lines carried from one point of the web to another exactly opposite, forming a complete series of spokes or radii, which she then attaches together by a spiral series of transverse bars of a more glutinous thread." The rapidity with which these webs are constructed is astonishing, as is also the accuracy with which the webs are formed. There are many different kinds of spiders, but nearly all of them envelope their eggs in a covering of silk, forming a round ball, which the spider takes care to hang up in some sheltered place till the spring. The mode in which the ball is formed is very curious: the mother spider "uses her own body as a gauge to measure her work, in the same way as a bird uses its body to gauge the size and form of its nest. The spider first spreads a thin coating of silk as a foundation, taking care to have this circular by turning round its body during the process. It then, in the same manner, spins a raised border round this till it takes the form of a cup, and, at this stage of the work, it begins to lay its eggs in the cup, not only filling it with these up to the brim, but piling them up above it into a rounded heap, as high as the cup is deep. Here, then, is a cup full of eggs, the under half covered and protected by the silken sides of the cup, but the upper still bare and exposed to the air and the cold. It is now the spider's task to cover these, and the process is similar to the preceding, that is, she weaves a thick web of silk all round them, and, instead of a cup-shaped nest like some birds, the whole eggs are enclosed in a ball much larger than the body of the spider that constructed it." (Penny Cyclopædia.) In fine weather, the female dragon-flies may sometimes be seen in this month depositing their eggs, which they lay in water, making a strange noise, as though they were beating the water while they are depositing their eggs; and the eggs themselves look like a floating bunch of small grapes. The larvæ, when hatched, live in the water, and it is scarcely possible to fancy more disgusting-looking creatures. They are short, and comparatively thick, and their motions are heavy and clumsy. They soon shed their skins, and become pupæ, still continuing to live in the water. The pupa of the dragon-fly differs from the larva, principally in having four small scales on its sides, by which the future wings are concealed. While the dragon-fly continues in its aquatic state, both as larva and pupa, it devours all the insects it can catch; but as it can only move slowly, it is furnished with a very curious apparatus to its head, which it can project at pleasure, and which it uses as a trap. This apparatus consists of a pair of very large, jointed, moveable jaws, which the insect keeps closely folded over its head, like a kind of mask, till it sees its prey; when it does, it creeps softly along till it is sufficiently near, and then it darts out those long, arm-like jaws, and seizing the insects it had marked, it conveys them to its mouth. When the dragon-fly emerges from its pupa case, it places itself on the brink of the pond, in which it has existed in its previous state, or on the leaf of some water-plant which is sufficiently strong to bear its weight, and there it divests itself of its pupa case, which, as it afterwards lies on the bank, looks exactly as though the insect were still contained in it. The insect, when it first appears, has two very small wings, but they gradually swell out, the veins in them appearing to fill with some coloured liquid, and two other wings gradually appear. As soon as the wings are fully expanded, and have attained their beautiful gauze-like texture, the dragon-fly begins to dart about, and to catch any poor unfortunate insect that may fall in its way. A dragon-fly may sometimes be seen flying about with an insect in its mouth so much larger than its own head, that it is difficult to imagine how it will contrive to swallow it. The mouths and stomachs of dragon-flies are, however, gifted with an extraordinary power of distension; and thus, however large the captured fly, moth, or butterfly, may be, it disappears, as though by magic.



NATIONAL SPORT, NORTH AMERICA—  
BUFFALO HUNT.

M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.			HIGH WATER			EQUA- TION OF TIME.	Day of the Year.
			Rises.	SETS.	DECLI- NATION NORTH.	Rises. Afternoon	SETS. Morning	SETS. Morning	Before Sunrise.	After Sunset.	At London Bridge					
			H. M.	H. M.	Deg. Min.	H. M.	H. M.	H. M.	O'Clock 2h. 4h. 5h.	O'Clock 7h. 8h. 10h.	Morning. Afternoon	M. S.	M. S.	M. S.	Subt.	
1	F	Pheasant shooting begins	6 15	40	3 3	10 57	Morning	Afternoon				6 35	7 5	10 11	274	
2	S	Mercury sets 5h. 54m. P.M.	6 35	38	3 26	11 57	6 42	2 21				7 35	8 10	10 30	275	
3	S	18TH S.AFT. TRIN.	6 55	35	3 49	Morning.	7 31	2 54				8 55	9 35	10 49	276	
4	M	α Andromædæ souths at 11h. 5m. P.M., 67 deg. high	6 75	32	4 13	1 1	8 18	3 25				10 15	10 55	11 7	277	
5	Tu	Venus rises 6h. 16m. A.M.	6 95	29	4 36	2 2	9 2	3 51				11 30		11 25	278	
6	W	Faith	6 105	27	4 59	3 5	9 46	4 17				0 3	0 30	11 43	279	
7	Th	β Aquarii souths at 8h. 20m. P.M., 32 deg. high	6 125	24	5 22	4 6	10 28	4 40				0 49	1 10	12 0	280	
8	F	Moon in Apogee	6 145	22	5 45	5 10	11 11	5 3				1 27	1 45	12 17	281	
9	S	St. Denys. Eclipse	6 155	20	6 8	6 12	11 53	5 26				1 59	2 15	12 34	282	
10	S	19TH S.AFT. TRIN.	6 175	18	6 31	7 13	Afternoon	5 51				2 33	2 45	12 50	283	
11	M	The Sun rises E. by S. and sets W. by S.	6 195	15	6 54	8 17	1 21	6 20				3 2	3 20	13 5	284	
12	Tu	Mars rises 6h. 9m. P.M. near the E.N.E.	6 205	13	7 16	9 17	2 7	6 52				3 33	3 50	13 20	285	
13	W	Fomalhaut souths at 9h. 17m. P.M., 8 deg. high	6 225	10	7 39	10 16	2 54	7 28				4 1	4 20	13 35	286	
14	Th	Jupiter rises 9h. 43m. P.M.	6 245	8	8 1	11 14	3 44	8 13				4 35	4 50	13 49	287	
15	F	Saturn sets 2h. 9m. A.M.	6 255	6	8 24	Afternoon	4 34	9 3				5 8	5 30	14 2	288	
16	S	20TH S.AFT. TRIN.	6 275	4	8 46	0 58	5 26	10 2				5 50	6 10	14 15	289	
17	S	St. Luke	6 285	2	9 8	1 36	6 19	11 7				6 35	7 5	14 28	290	
18	M	The Sun in Libra	6 305	0	9 30	2 12	7 12	Morning				7 35	8 15	14 40	291	
19	Tu	Bat. of Navar. 1827	6 314	58	9 52	2 46	8 6	0 19				9 0	9 45	14 51	292	
20	W	Battle of Trafalgar, 1805—Nelson killed	6 324	56	10 14	3 17	9 0	1 34				10 23	11 2	15 2	293	
21	Th	Moon in Perigee	6 344	54	10 35	3 48	9 55	2 54				11 35	At Midnight.	15 12	294	
22	F	21ST S.AFT. TRIN.	6 364	52	10 56	4 17	10 50	4 15				0 29		15 21	295	
23	S	St. Crispin and St. Crispianus	6 384	50	11 18	4 51	11 48	5 36				0 55	1 15	15 30	296	
24	S	α Arietis souths at 11h. 35m. P.M., 61 deg. high	6 404	47	11 39	5 28	Morning.	6 58				1 40	2 0	15 38	297	
25	M	St. Simon and St. Jude	6 424	45	12 0	6 6	0 46	8 16				2 25	2 50	15 45	298	
26	Tu	Sun in Scorpii from the 24th	6 444	43	12 20	6 54	1 44	9 30				3 10	3 35	15 52	299	
27	W		6 464	41	12 41	7 47	2 43	10 35				3 55	4 20	15 58	300	
28	Th		6 484	39	13 1	8 44	3 40	11 32				4 40	5 0	16 3	301	
29	F		6 504	37	13 21	9 45	4 34	Afternoon				5 25	5 45	16 7	302	
30	S		6 514	36	13 41	10 50	5 25	0 55				6 15	6 40	16 11	303	
31	S		6 534	34	14 1	11 53	6 14	1 29				7 10	7 40	16 14	304	



## OCTOBER.

THE MOON is new at 7 minutes after 9 o'clock in the morning of the 9th, and as the line drawn from the Earth to the Sun nearly passes through the centre of the Moon, an Eclipse of the Sun takes place; and as the Moon at the time is nearly in Apogee, or at her greatest distance from the Earth, her diameter appears to be less than that of the Sun, and consequently the Eclipse is annular. She enters her 1st quarter at 21 minutes after 7 on the morning of the 17th; she is full at 36 minutes after 11 in the evening of the 23rd, but without an eclipse; and she enters her last quarter on the 30th at 56 minutes after 9 o'clock in the evening.

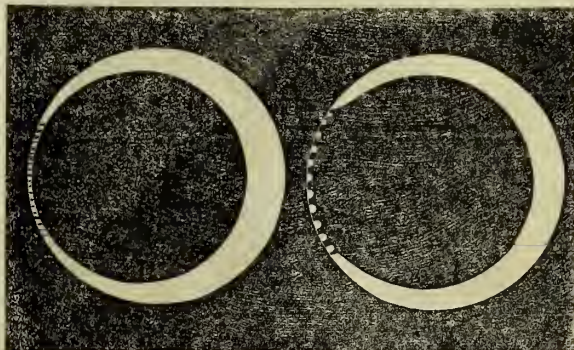
A total and annular eclipse of the Sun, at any particular place, is an event of a very rare occurrence, since not more than half a dozen have been recorded as having been seen in Europe since the invention of the telescope. The accounts of these are discordant in several particulars; probably owing to the sudden and unexpected appearances that have prevented themselves. The difficulty arising from this circumstance, with respect to the phenomena that may be expected in future eclipses, is much increased from the want of drawings to represent the exact appearances that have been seen. As such, however, are much more readily understood than any verbal description, we shall collect those that have been made, and hope by this means that the several phenomena will be fully comprehended, and that persons beforehand may know what phenomena may be expected, and have an opportunity of confirming, or otherwise, by their testimony, as to those which may happen.

APPEARANCE OF THE SUN AT THE ANNULAR ECLIPSE OF 1836, MAY 15, AS

SEEN BY MR. F. BAILLY.

Fig. 1.

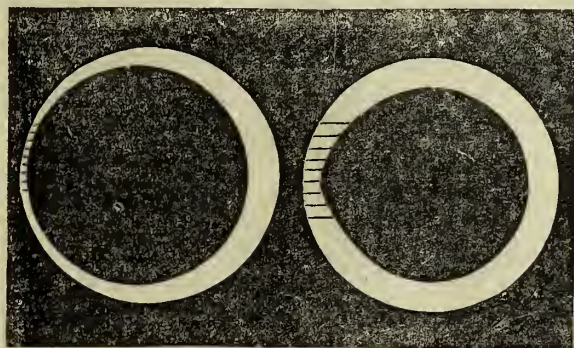
Fig. 2.



In 1836, on May 15, an Eclipse of the Sun was annular at Jedburgh, in Roxburghshire; and Mr. Bailly, late President of the Royal Astronomical Society, went there for the purpose of witnessing certain singular appearances which had been recorded as having taken place in former Eclipses. Bailly, in an account

Fig. 3.

Fig. 4.



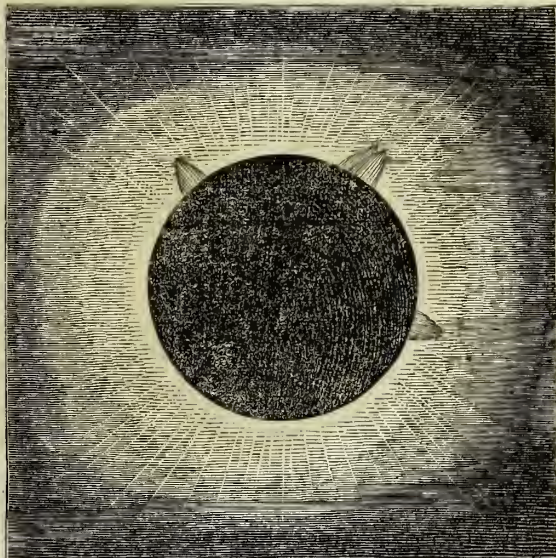
of the observed phenomena, furnished to the Astronomical Society, observes, "when the cusps of the Sun were about 40° asunder, a row of lucid points, like a string of bright beads, irregular in size and distance from each other, suddenly formed round that part of the circumference of the Moon that was about to enter, or which might be considered as having just entered, on the Sun's disc. Its formation indeed was so rapid that it presented the appearance of having been caused by the ignition of a fine train of gunpowder. (See Fig. 1.) My surprise, however, was great on finding that these luminous parts, as well as the dark intervening spaces, increased in magnitude, some of the contiguous ones appearing to run into each other like drops of water: for, the rapidity of the change was so great, and the singularity of the appearance so fascinating and attractive, that the mind was for the moment distracted, and lost in the contemplation of the scene. (See Fig. 2.) Finally, as the Moon pursued her course, these dark intervening spaces were stretched out into long, black, thick, parallel lines. (See Fig. 3.) Fig. 4 represents a continuation of the same phenomenon; when, all at once, the long threads suddenly broke and wholly disappeared, leaving the circumferences of the Sun and Moon in those points, as in the rest, comparatively smooth and circular; and the Moon perceptibly advanced on the face of the Sun."

"After the formation of the Annulus thus described, the Moon preserved its usual circular outline during its progress across the Sun's disc, till its opposite limb again approached the border of the Sun, and the annulus was about to be dissolved. When (all at once), the limb of the Moon being at some distance from the edge of the Sun, a number of long, black, thick parallel lines, exactly similar in appearance to the former ones above mentioned, suddenly darted forward from the

Moon and joined the two limbs as before: and the same phenomena were thus repeated, but in an inverse order."

On July 8th, 1842, a total Eclipse of the Sun took place, and Mr. Bailly went to Pavia, in Italy, to observe it. In an account of the phenomenon from him to the Royal Astronomical Society, Mr. Bailly remarks: "I at first looked out very narrowly for the black lines which were seen in the annular Eclipse of 1836, as they would probably precede the string of beads. These lines, however, did not make their appearance; or, at least, they were not seen by me. But the beads were distinctly visible; and on their first appearance I had noted down on paper, the time of my chronometer, and was in the act of counting the seconds in order to ascertain the time of their duration, when I was astounded by a tremendous burst of applause from the streets below, and at the same moment was electrified at the sight of one of the most brilliant and splendid phenomena that can well be imagined; for, at that instant, the dark body of the Moon was suddenly surrounded with a corona, or kind of bright glory, similar in shape and magnitude to that which painters draw round the heads of saints, and which by the French is designated an *aurole*."

APPEARANCE OF THE TOTAL ECLIPSE OF THE SUN ON JULY 8, 1842, AS SEEN AT PAVIA, IN ITALY, BY MR. F. BAILLY.



"Pavia contains many thousand inhabitants, the major part of whom were at this early hour, walking about the streets and squares, or looking out of windows, in order to witness this long talked of phenomenon; and when the total obscuration took place, which was instantaneous, there was a universal shout from every observer, which 'made the welkin ring,' and for the moment drew my attention from the object with which I was immediately occupied. (See Figure.) I had indeed anticipated the appearance of a luminous circle round the Moon during the time of total obscuration; but I did not expect from any of the accounts of preceding eclipses that I had read, to witness so magnificent an exhibition as that which took place." Mr. Bailly then proceeds to say that the most remarkable circumstance attending this phenomenon, was the appearance of three large protuberances, apparently emanating from the circumference of the Moon. (See Figure,) and he remarks that his attention was so constantly taken up by the remarkable and unexpected appearances, that he omitted to watch for the reappearances of the beads, and, therefore, he could not add his testimony to the recurrence of that phenomenon."

At page 52 is a chart showing the parts of France, England, and Ireland, that the Eclipse will be annular. At all places situated on, or near the central line, the Eclipse will be central and annular, the ring appearing of the same dimensions all round, or nearly so. At all places situated between the central line and those N. and S., marked respectively northern and southern limit, the Eclipse will be annular, but the ring will be of uneven dimensions, and it will be of shorter duration. At all places beyond those limits the Eclipse will not be annular, a partial eclipse will only take place, and the further removed the place may be, the less the eclipse will be. At all places N. of these lines a portion of the upper part of the Sun will be visible; and at all places S. of those lines, a portion of the lower part of the Sun will be visible. The times at which the several successive steps in the phenomena happen are mentioned below for different places.

Phases of the Eclipse on Oct. 9, 1847.	London.	Cambridge.	Edinburgh.	Dublin.	Havre.	Paris.	Colmar.
The Sun rises at .	H. M. 6 15	H. M. 6 14	H. M. 6 19	H. M. 6 16	H. M. 6 12	H. M. 6 12	H. M. 6 12
The Eclipse begins at .	6 14	6 15	6 7	5 51	6 12	6 21	6 41
Formation of the ring .	7 26	No ring	No ring	No ring	7 22	7 32	7 54
Greatest eclipse .	7 27	7 28	7 18	7 1	7 25	7 34	7 58
Rupture of the ring .	7 28	No ring	No ring	No ring	7 29	7 38	8 1
End of the Eclipse .	8 48	8 49	8 36	8 20	8 47	8 58	9 24
Duration of the ring .	14	A partial eclipse	A partial eclipse	A partial eclipse	6	6	6
Duration of the Eclipse	2 34	2 33	2 29	2 29	2 35	2 37	2 43
Proportion of the Sun's diameter eclipsed at places where no ring is formed .	9-10ths of the lower limb	3-4ths of the lower limb	3-4ths of the lower limb	9-10ths of the lower limb			

(Continued on page 53)

THE TIMES OF THE BEGINNING AND ENDING OF THE ECLIPSE AT THE FOLLOWING PLACES MAY ALSO BE FOUND USEFUL.

	Altona.	Berlin.	Bonn.	Breslau.	Göttingen.	Gotha.	Königsberg.	Manheim.	München.	Pulkowa.	Vienna.
Beginning .	H. M. 7 11	H. M. 7 25	H. M. 6 55	H. M. 7 40	H. M. 7 7	H. M. 7 12	H. M. 8 1	H. M. 7 0	H. M. 7 11	H. M. 8 56	H. M. 7 33
Ending .	9 52	10 10	9 37	10 30	9 52	9 56	10 47	9 43	10 0	11 35	10 26
Prop. of the Sun's diam. eclipsed	5-6ths	5-6ths	11-12ths	5-6ths	5-6ths	11-12ths	3-4ths	11-12ths	11-12ths	7-12ths	11-12ths



## October Anniversary.



A DOMESTIC ANNIVERSARY.

## THE FIRST FIRE OF THE SEASON.

THE lighting of the first fire for the season is one of the annual events of the domestic circle; the evenings shorten in and a sort of general chilliness becomes very perceptible, but there is a wish to prolong the very appearance of summer as long as possible, so there is a delay in ordering in the coals; but delay avails nothing—the sky becomes more and more Novemberish, and though it is only October by the almanack, yet it is voted winter by general consent, or rather general feeling, and the scene our artist has sketched is the result, we hope multiplied through thousands of happy households. The “old folks” tell us that they remember when the good people of the city never made themselves comfortable till “Lord Mayor’s day”—that great civic event—however cold the weather might be before the 9th of November. How they must have envied the cooks of the Guildhall Banquet, though in all the pride of self-denial they were above the weakness of confessing it! Perhaps Winter was tardier in his arrival in those days, and only sent a wholesome kind of “fine bracing air” till a day or two before the important 9th, when he would commission a smart frost to harden the roads for the procession, keep the shoes of the city footmen clean, and sharpen the noses and appetites of all parties present. Then it was considered winter, and it was orthodox to handle the poker and coal-skuttle. We are a more impatient generation, and do not choose to let our teeth chatter in our heads till his Lordship has paid his morning call to the Judges at Westminster. Every age has its prejudices, but we cannot help thinking our plan is the most rational—to light up the hearth when it is required, without regard whether it is “a day before or a day after” any event at all. So put on some more coals!

The air bites shrewdly, it is very cold;  
It is a nipping and an eager air!

There! now we begin to look comfortable, and to feel so also; and having broken a solid lump of the “heat-diffusing” substance, as Homer would have called it if he had ever sung of coals, for the mere sake of seeing the flame, we find ourselves warming into poetry, which thus breaks forth into—A SONG FOR THE SEASON.

## THE FIRST FIRESIDE.

The Spring may boast its vernal how’rs,  
Its closing shades and opening flow’rs—  
Its songs of birds from morning hours  
To eventide!—  
Give me the homely joys we greet  
When, fill’d each hospitable seat,  
Some kindred spirits kindly meet  
Round First FIRESIDE.

Let Summer shed her burning glow  
To melt the chilly mountain snow  
And make the valley-streamlets flow  
In gushing pride—  
She hath not such a charm to make  
The drooping heart so sweetly take  
A part in mirth for mirth’s own sake  
As warm FIRESIDE!

Rich Autumn with her golden store,  
May count her treasures o’er and o’er,  
And say such wealth did ne’er before  
The land betide—

But in a snug and shelter’d room  
Where neither mind’s nor season’s gloom  
Can blight our joyous—mental bloom—  
Give me—FIRESIDE!

Now fruits and flowers, and yellow sheaves  
Are gather’d in, and wither’d leaves  
Be all the traveller’s eye perceives  
In prospect wide—  
How sweet to ramble through some hook,  
Or chat with so social friends in nook  
From which we have the cheering look  
Of good FIRESIDE.

And then to send the glass around,  
And have the happy meeting crown’d,  
With some old ditty’s cordial sound,  
Too oft denied—  
To melodies of greater skill,  
That have no power, if they’ve the will  
To touch our hearts like those that thrill  
Round old FIRESIDE.

Then hail the genial season, hail!  
O’er mild October’s nut-brown ale,  
Let’s sit and hear the merry tale,  
Or nought beside—

Which may the passing hour engage—  
Of life we’ll con the varied pace,  
And hope for happy good old age  
By our FIRESIDE.



## OCTOBER.

THERE are few plants in flower in the month of October, but many are very ornamental in their fruit or seeds. Almost all the American crataegi are more ornamental in their fruit than in their flowers, the flowers in many cases differing very little from those of the common hawthorn; while the fruit is as large as a small apple, and is either of a bright yellow or dark scarlet, being in either case very ornamental. The mountain ash is now, as Wordsworth expresses it,

Deck'd with autumnal berries that outshine  
Spring's richest blossoms.

The white beam tree, and other plants of the same genus, are also covered with their scarlet berries. In the mountain districts, different kinds of juniper, bilberries, whortleberries, crowberries, and other dwarf moor plants, are in fruit. In the forests, the trees have now taken their autumnal tints: the lime is a pale orange; the maple, poplar, and birch, light yellow or straw colour; the wild cherry, the crab, the dogwood, the spindle tree, the guelder rose, and the five-leaved ivy, different shades of red; the elm, a dull brown; the horse chestnut and beech, a reddish brown; and the oak, yellow and brown. Some trees change very little, particularly those which grow near water, such as the willow and the alder; and others change very much, such as the sycamore, which Cowper well describes as—

"Cephrion in attire;  
Now green, now tawny, and ere autumn yet  
Has changed the woods, in scarlet honours bright."

The ash seldom becomes beautiful in autumn, the leaves generally falling with the first frost, or becoming shrivelled up as if scorched. The beech, on the contrary, is perhaps one of the most beautiful of all trees in its autumnal tints, which display various shades of the richest yellows and browns, and which frequently retains its withered leaves till the following spring.

The leaves of the hornbeam take almost the same colour as those of the beech, and they remain on nearly as long. In pleasure-grounds the leaves of the liquidambar turn of a rich crimson; those of the *Diospyros Lotus* become pink beneath in autumn, and fall off altogether with the first frost. Thus, the tree may be clothed with leaves at sunset, and, after a frosty night, it may be found the next morning at sunrise entirely bare, the leaves lying in heaps upon the ground. The American oaks take beautiful colours in autumn; the leaves of the scarlet oak become scarlet; those of the red oak and some other kinds crimson; and those of the white oak violet. Some of the other kinds become almost black, and some yellow. A very good effect may be produced in plantations by attending to the autumnal colours of the leaves of trees. Most of the ferns are very beautiful at this season, from the rich brown of the sori, or clusters of seed cases at the back of the leaves.

In this month, numerous kinds of fungi appear. One of the most conspicuous of these is the fly-agaric, which, though it belongs to the same genus as the mushroom, is one of the most poisonous of all the kinds of fungus. This plant is large, and very handsome, having a bright scarlet cap, studded with pearl-like projections of a brilliant white. The botanists who have named the plant have, however, fancied that the white projections look like the maggots of flies, and hence the name of fly-agaric, though others derive the name from a decoction of the plant being sometimes used to poison flies. The Russians are said to make an intoxicating liquor with it, called Moncho More, and which brings on convulsions and raving madness, if drunk to excess. The Hydnum, or tree fungus, is found in woods, generally growing on the roots of trees. There are several kinds of this fungus, some of which are dried and powdered, and then eaten, in Sweden, and some of the other northern countries.

Various kinds of lichens are also extremely beautiful at this season, and some of the most curious of the mosses. Among these may be mentioned the dark green Hookeria, which is found in the south of Ireland, and near the waterfalls of Killarney. The leaves of this moss are broad, ending in a sharp point, and when they are examined in a microscope, they will be found to have two distinct midribs, and the surface curiously reticulated. Another very beautiful moss which is found in the north of England and Scotland, and which is in fruit at this season, is the ostrich-plume moss (*Hypnum crista castrensis*). This is sometimes confounded with the crested feather-moss, which is common in rocky places in the chalky and limestone districts of Great Britain.

In this month pheasant-shooting begins. Pheasants are found in most parts of England, but they are less plentiful in the north than in the south; and in Scotland they are scarcely ever met with. Woods and corn-fields seem to be essential to the existence of this bird. It is very fond of acorns and beech-mast, and it also eats abundance of corn, sometimes even scratching up growing wheat, to bite off the grain still remaining at the root. Pheasants are very fond of the tubers of

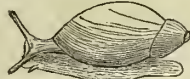


THE COMMON PHEASANT.

one of the kinds of creeping crowfoot (*Ranunculus bulbosus*), a plant which is poisonous to human beings, from its extreme acidity. Pheasants will live in captivity, but when they are domesticated, the male bird must be kept apart from the young ones, or he will destroy them. In a wild state, the female carefully hides her nest from the male. The pheasant is a dull bird, and, when sportsman to approach closely before it flies away. In October, also, most of the migratory birds who pass the winter in this country make their appearance, and, among others, the fieldfare and the redwing. These birds appear in large flocks in October, and generally remain in England till April. "The extensive lowlands," says Mr. Knapp, "of the river Severn, in open weather, are visited by prodigious flocks of these birds; but, as soon as snow falls, or hard

weather comes on, they leave these marshy lands, because their insect food is covered, or become scarce, visit the uplands, to feed on the produce of the hedges, and we see them all day long passing over our heads in large flights, on some distant progress, in the same manner as our larks, at the commencement of a snowy season, repair to the turnip fields of Somerset and Wiltshire. They remain absent during the continuance of those causes which incited their migration; but, as frost breaks up, and even before the thaw has actually commenced, we see a large portion of these passengers returning to their worm and insect food in the meadows, attended, probably, by many that did not take flight with them; though a great number remain in the upland pastures, feeding promiscuously as they can." The fieldfare is a kind of thrush; but, instead of singing melodiously, like the common thrush, it only utters a loud chattering noise. It has never been known to breed in this country, notwithstanding the immense quantities that are seen here. It is a very shy bird, and will not live in a cage. Fieldfares, when fat, are reckoned delicacies for the table. The redwing is also a kind of thrush, of very similar habits to the fieldfare, coming over to England in great flocks. It feeds upon the berries of the hawthorn, and also upon various kinds of insects; and it is particularly fond of the hatched snail (*Helix nemoralis*), the shell of which it breaks against a stone or wall, in the same way as the garden thrush does. Like the fieldfare, it never builds in this country. It perches on trees, and may occasionally be heard to sing, but its note is generally only a loud chattering, and the ring ouzel generally leaves England in this month. It is singular enough that these birds generally assemble in great numbers on the southern and eastern coasts of England for a week or two before they finally depart, as if they were half unwilling to go. The wheat-ear generally leaves England in this month, and shortly before their departure, great quantities of them are caught in Sussex and Dorsetshire, and sent to the London market. They "are caught in a singular manner, by placing two turves on edge; at each end of which, a small horse-hair noose is fixed to a stick, which the bird, either in search of food, or to evade a storm of rain, attempts to get under, and is caught. Upon inquiry of the shepherds, whose trade this is, we have been informed that fifty or sixty of these traps have had a bird in them of a morning; sometimes several mornings together; and then for a day or two scarcely one is to be seen; and yet they are never observed to come in flocks: it is the general opinion that they come in the night." — (*Ornithological Dictionary*.) They are esteemed very delicate eating, and little inferior to the ortolan.

At this season of the year several kinds of molluscous animals are to be found in shallow water, in brooks and ditches. One of the most common of these is what is called the horny coil shell, or *Planorbis cornuus*. The shell of this creature at first sight looks like that of one of those little flat snails which are sometimes found in cellars; but, on examination, it will be found to differ from these creatures in being exactly the same on both sides, or, in the language of a naturalist, having neither spire nor column. The animal belonging to this shell is extremely like a snail when it is crawling with its tentacula extended, but it is much smaller in all its parts. It is found in ditches and ponds. The amber snail (*Succinea amphibia*), has a beautiful transparent shell of a light amber colour, and it is from this that it derives its scientific name, as *succinum* signifies amber.



THE AMBER SNAIL.

The puddle-mud shell (*Lymnaea peregra*) is also very frequently found in this country. Its shell bears considerable resemblance to that of *Succinea*, but it is less transparent, and has a more horny look. The shells of all the species of *Lymnaea* have the aperture on the right hand, and the plait on the left hand; which distinguishes them from *Succinea*. Another kind of pond snail, called the stream bubble shell (*Physa fontinalis*), is distinguished from *Lymnaea* by its opening being on the left hand instead of the right. All the pond snails have a singular manner of appearing to crawl under the surface of the water with their shells downwards. They also let themselves down in the water with a thread, in the same way as some kinds of caterpillars let themselves down in the air. The common circle shell (*Cyclostoma elegans*) is found abundantly in various parts of England and Wales, near hedges, and in other sheltered situations. The shell is of a greyish, and sometimes purplish brown, occasionally marked with two rows of purplish brown spots. The operculum is hard and horny externally, and marked with a slight spiral line. The animal is of a greyish brown, with tentacula, having black tips like those of the snail. The cry stalline marsh snail (*Paludina vivipara*), is often found in marshy places or ditches, at this season. The shell is of an olive green, with five whorls, the lower ones of which are very distinctly marked, and very much inflated; and it bears considerable resemblance to the apple shells often found in collections which are brought from Egypt. The animals resemble a snail, and they are viviparous. The shells of the marsh snails are found abundantly in the river Colne, at Uxbridge; in the Thames; and in the rivers of Cambridgeshire, Oxfordshire, Essex, and Suffolk; but they are never found in the north of England, or near the sea. The river limpet (*Ancylus fluviatilis*), is a very small shell, found in streams and rivulets attached to stones. The animal is greyish, and very lively. The shell is almost transparent, with a blue tinge inside, and a pointed top, which is on one side, and slightly curved downwards. These animals are sometimes seen swimming in the water, just below the surface, with the shell downwards, like the pond snail.



LYMNAEA PEREGRINA.



PHYSA FONTINALIS.

The insects which are most abundant this month, are the different kinds of flies, particularly the common blue-bottle, or blow-fly, and the crane-fly, or daddy long-legs. The latter belongs to the genus *Tipula*, and is remarkable for the extraordinary length of its legs. The blow-fly produces its young alive, and they begin to eat as soon as they are born. A single blow-fly has been known to produce twenty thousand living maggots; and each of these continues eating so voraciously, that in twenty-four hours it has increased its own weight above two hundred times; and in five days it has attained its full size. When the maggots have attained their full size, they go into the pupa state, and remain in that only about five days, when they become flies ready to produce thousands of more maggots, and afterwards flies, till the whole brood is destroyed by cold. The blue-bottle fly lays eggs, as does the common house fly. These eggs are generally deposited either in dungheils or other heaps of rubbish, from whence they issue in great quantities on a warm day. One kind of small two-winged fly lays its eggs on the leaf of the sow thistle, and the maggots live entirely upon the cellular tissue of the leaf, without touching the outer skin, either on the upper or under side. These maggots generally commit their ravages in the maggot state, early in the month of October, and appear in their fly state towards the close of that month; but Professor Kennie found one of these mining maggots at work in December, on the leaf of a purple cineraria, grown in a pot, and kept in the house.



NATIONAL SPORT, NORWAY—  
BEAR HUNT.

M D	W D	ANNIVERSARIES, OCCU- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.			HIGH WATER AT LONDON BRIDGE			EQUA- TION OF TIME.	Day of the Year
			Rises.	Sets.	DECLINA- TION NORTH.	Rises.	Souths.	Sets.	Before Sunrise.	After Sunset.	Moon's Age.	Morning.	Afternoon.	Subt.		
			H. M.	H. M.	Deg. Min.	H. M.	H. M.	H. M.	O'Clock. 2h. 4b. 6h.	O'Clock. 6h. 8h. 10h.		H. M.	H. M.	M. S.		
1	M	All Saints	6 56	4 32	14 20			1 56			23	8 15	8 57	16 16	305	
2	Tu	All Souls	6 57	4 31	14 39	Morning.	Morning.	2 20			24	9 35	10 10	16 17	306	
3	W	α Aquilæ souths 4h. 54m. P.M.	6 59	4 29	14 58	1 59	8 27	2 45			25	10 50	11 20	16 17	307	
4	Th	Wm. III. land. 1688	7 14	27 15	17 17	3 1	9 9	3 7			26	11 50		16 17	308	
5	F	Gunpowder Plot	7 24	26 15	36 4	2 9	51 3	40			27	0 14	0 35	16 16	309	
6	S	α Cygni souths, 5h. 35m. P.M.	7 44	24 15	54 5	5 10	34 3	54			28	0 55	1 15	16 13	310	
7	S	23RDS.AFT.TRIN.	7 64	23 16	12 6	8 11	18 4	20			29	1 31	1 45	16 10	311	
8	M	β Aquarii souths at 6h. 15m. P.M., 32 deg. high	7 74	22 16	29 7	10	Afternoon	4 53			30	2 4	2 20	16 7	312	
9	Tu	Birth of Prince of Wales, 1841—Lord Mayor's Day	7 94	20 16	47 8	11	0 52	5 29			1	2 35	2 50	16 2	313	
10	W	β Aquarii souths 6h. 6m. P.M.	7 104	19 17	4 9	9	1 41	6 11			2	3 10	3 25	15 56	314	
11	Th	St. Martin's Day,	7 124	18 17	21 10	3	2 31	6 59			3	3 40	3 55	15 50	315	
12	F	or Martinmas	7 144	16 17	37 10	53	3 23	7 55			4	4 15	4 30	15 43	316	
13	S	Fomalhaut souths at 7h. 20m. P.M., 8 deg. high	7 164	14 17	54 11	37	4 15	8 58			5	4 50	5 10	15 35	317	
14	S	24THS.AFT.TRIN.	7 184	12 18	10	Afternoon	5 7	10 6			6	5 30	5 53	15 26	318	
15	M	α Pegasi souths 7h. 20m. P.M.	7 204	11 18	25 0	47	5 58	11 18			7	6 20	6 45	15 16	319	
16	Tu	The Pleiades souths at 11h. 50m. P.M.	7 224	10 18	40 1	18	6 50	Morning.			8	7 20	7 53	15 6	320	
17	W	St. Hugh	7 234	9 18	55 1	47	7 42	0 32			9	8 35	9 10	14 55	321	
18	Th	α Andromedæ souths 6h. 11m. P.M.	7 254	8 19	10 2	16	8 36	1 49			10	9 50	10 25	14 43	322	
19	F	Sun in Scorpio	7 274	7 19	24 2	46	9 30	3 7			11	11 0	11 35	14 30	323	
20	S	St. Edmund	7 284	6 19	38 3	18	10 27	4 26			12		At Noon.	14 16	324	
21	S	25THS.AFT.TRIN.	7 304	5 19	52 3	57	11 25	5 46			13	0 30	0 55	14 1	325	
22	M	St. Cecilia	7 314	4 32	5 4	39	Morning	7 3			14	1 21	1 45	13 46	326	
23	Tu	St. Clement	7 334	2 20	18 5	29	0 24	8 15			15	2 10	2 30	13 30	327	
24	W	Sun in Sagittarius	7 354	0 20	30 6	26	1 22	9 16			16	2 55	3 15	13 13	328	
25	Th	St. Catherine	7 363	58 20	42 7	27	2 20	10 12			17	3 40	4 0	12 55	329	
26	F	St. Stephen	7 383	57 20	54 8	33	3 14	10 54			18	4 25	4 45	12 37	330	
27	S	The Sun rises S.E. by E., and sets S.W. by W.	7 393	56 21	5 9	39	4 6	11 30			19	5 5	5 30	12 17	331	
28	S	1ST S. IN ADVENT	7 403	55 21	16 10	44	4 54	11 59			20	5 50	6 15	11 58	332	
29	M	Aldebaran souths at 11h. 54m. P.M., 55 deg. high	7 423	54 21	27 11	48	5 40	Afternoon			21	6 40	7 5	11 37	333	
30	Tu	St. Andrew	7 443	54 21	37	After Midnight.	6 23	0 48			22	7 35	8 0	11 15	334	



## NOVEMBER.

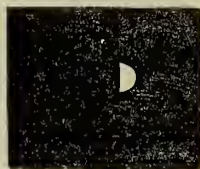
THE MOON rises after midnight, and before noon till the 13th, and between noon and midnight from the 14th to the end of the month. She sets before midnight till the 15th; and after midnight from the 17th. She is in Leo till the 3rd; is seen E. of Regulus; and she is moving towards a point a few degrees above Spica Virginis. On the 4th, 5th, and 6th, she is in Virgo, and in Libra on the 7th and 8th. On the latter day at 3h. 11m. A.M. she is new, but without an eclipse, as she is 34 degrees from the line joining the Sun and the Earth. On the 9th and 10th she is in Ophiuchus; on the 11th, 12th, and 13th, she is in Aquila. From the 9th, her crescent will be seen after sun-set, N. of E. From the 11th to the 13th she is passing a barren region. On the 13th she passes at a considerable distance under the principal stars in Aquila. On the 14th, 15th, 16th, and 17th, she is in Aquarius. On the 15th she enters her 1st quarter. On the 17th she passes under the square of Pegasus, and at 6h. A.M. on the 18th, she is on the Equator, moving N. On the 18th, 19th, and 20th, she is in Aries, and moving directly towards Aldebaran. On the 21st, 22nd, and 23rd, she is in Taurus. On the 22nd, at Midnight, she and Aldebaran will nearly South together, the star being very near the Moon; and, at 10h. 4m. in the morning the Moon is full, but without an eclipse, as she is 4 degrees distant from the line joining the Sun and the Earth. On the 26th she is in Cancer, and in Leo to the end of the month, from the 27th. On the 29th, at 1h. A.M., Regulus is about 4° above the Moon, and on this day, at 4h. 22m. P.M. she enters her 3rd quarter.

MERCURY will be in the constellation of Scorpio till the 19th; in that of Ophiuchus, between the 19th and 25th; in that of Scorpio again between the 25th and 29th, and in that of Libra after the 29th.

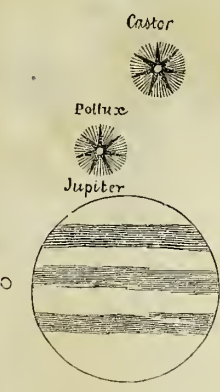
He sets on the 1st, at 5h. 9m. P.M., or 37 minutes after the Sun has set; on the 6th, at 5h. 4m. P.M.; on the 11th, at 4h. 58m. P.M.—on both days being 40 minutes after the Sun has set; on the 16th, at 4h. 49m. the Sun having set 39 minutes earlier; on the 21st, he sets at 4h. 30m., and on the 26th, at 4h. 3m. P.M., being 9 minutes only after the Sun has set. The point of the horizon at which he sets from the 1st to the 15th, is midway between S.W. by W. and S.W. On the 20th, it is S.W. by W., and at the end of the month it is midway between the W.S.W. and S.W. by W.

During the month he is moving Eastward among the stars, till the 15th, and Westward after that day.

APPEARANCE OF MERCURY ON THE 5TH, AND VENUS TOWARDS THE END OF THE MONTH.



RELATIVE SITUATION OF CASTOR, POLLUX, AND JUPITER DURING THE MONTH.



The planets are drawn upon a scale of 40" to an inch.

On the 1st, he is situated about 6° W.N.W. of Antares; on the 7th, he is 2° N. of that star; after that time he is moving Eastward of it, and on the 15th he is 6° E.N.E. of it. The Moon passes him early in the morning of the 10th.

VENUS will be in the constellation of Virgo all the month. On the 1st, she rises at 3h. 39m. A.M., and souths at 9h. 28m. A.M., at the altitude of 35°; on the 15th, she rises at 3h. 17m. A.M., and souths at 9h. 0m. A.M.; on the 21st, she rises

at 3h. 14m. A.M., and after this time she rises later day by day; on the last day, she rises at 3h. 19m. near E. by S., and souths at 8h. 48m. A.M., and after this time she souths later every day.

At the end of the month of September it was stated that her motion at that time was Westward among the stars, and it continued such till October 16th. Between the 17th and the 25th, she was nearly in the same relative position among them, and after the 17th of October, her motion was again Eastward, as before September 7th; it continues Eastward during the month of November, and she is moving again towards Spica Virginis till the 28th, when she is 4° N. of that star. During this month Beta Leonis, Spica Virginis, and Venus form a conspicuous triangle.

On the 4th, in the morning, she is about 1° S. of the Moon. On the morning of the 8th, Venus is at her greatest brilliancy as a morning star.

MAJ will be in the constellation Aries; he rises on the 1st, at about the time the Sun sets, and after this time he rises before the Sun sets, and, therefore, the times of his rising are not visible. He sets near the W.N.W. all the month: on the 1st at 6h. 53m. A.M.; on the 15th, at 5h. 37m. A.M., and on the last day at 4h. 29m. A.M. He souths on the first day at 11h. 37m. P.M.; on the 15th, at 10h. 25m., and on the last day at 9h. 18m. P.M., at an altitude of 51° each day.

The motion of the Planet among the stars is westward, till towards the end of the month, at which time he is stationary among them; and he has the same relative position for several days together. On the 20th, he is in a line drawn from the Pole Star, through Alpha Arctis, to 11° distance from this star; by this means and his great splendour during this month he will be readily found.

The Moon passes him on the 20th at noon.

JUPITER will be in the constellation of Gemini. He rises near the N.E. by N. point of the horizon. On the 1st day at 8h. 40m. P.M.; and on the last day at 6h. 40m. P.M.; he souths on the same days respectively at 4h. 49m., and 2h. 52m. A.M., at an altitude of 60° throughout the month.

He is stationary among the stars till towards the end of the month; after that time he moves slowly towards the W. During the month he is situated about 10° from Castor and 5° from Pollux.

During the night of the 25th, the Moon is near him, and at 1h. in the morning of the 26th, she passes him; being at the time 5° lower than he is; so that at this time Castor, Pollux, Jupiter, the Moon, and Procyon are one above the other, Castor being the highest and Procyon the lowest.

SATURN rises and sets at the same points of the horizon, and souths at the same altitude as in last month. His times of rising are about 24h. P.M., at the beginning and about 1h. P.M. at the end of the month. He souths at 7h. 53m. P.M.; and at 6h. 0m. P.M., on the 1st and last days respectively; and sets at 1h. 4m. A.M. on the 1st; on the 17th he sets twice on the same day, viz., at 0h. 1m. A.M. and at 1h. 57m. P.M., and on the last day he sets at 11h. 7m. P.M.

He is nearly stationary among the stars for the greater part of the month, and he is moving Eastward among them at the end; he is situated the same as in August.

On the 16th at 8h. 36m. P.M., the Moon is 5° higher than the Planet, and in the line joining the Pole Star and Saturn, so that before this time the Moon was W. and after this time she is E. of this planet.

URANUS sets at 3° S. of W. by N., on the 1st day at 4h. 52m. A.M., and on the last day at 2h. 52m. A.M. He souths on the 15th day at 9h. 15m. P.M. The Moon is W. of him on the 18th, and E. of him on the 19th.

TIMES OF THE SOUTHING, &c., OF THE PRINCIPAL FIXED STARS, WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Stars' Names.	Magnitude.	Time of southing during the evening of the 1st day.		Height in degrees above the horizon.	Setting.
		H.	M.		No. of hours from southing. Point of the horizon.
Alpha Aquilæ	1	5	3	47s	6½ Near W. by N.
Alpha Cygni	1	5	56	83s	Never Sets
Alpha Cephæ	3	6	35	79n	Never Sets
Epsilon Pegasi	2	6	56	48s	6½ Near W. by N.
Fomalhaut	1	8	8	8s	2½ S.W. by S.
Alpha Pegasi	2	8	16	24s	7½ W.N.W.
Alpha Andromedæ	1	9	19	67s	8½ Near N.W.
Gamma Pegasi	2	9	24	53s	7½ W.N.W.
Alpha Cassiopeæ	3	9	51	86n	Never Sets
Alpha Arctis	3	11	18	61s	8½ Near W.S.W.

Days of the Month.	Length of Day, or number of hours between Sun-rise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Day-break, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.								OCULTATIONS OF STARS BY THE MOON.						
					Eclipses of								Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.			At the dark or bright limb of the Moon.	
					1st. Sat.				2nd. Sat.										
					Emersion.				Emersion.										
	H. M.	H. M.	H. M.	H. M.	D.	M.	A.M.	P.M.	D.	H.	M.	P.M.							
1	9 36	6 58	5 1	6 27	4	4	50	A.M.	5	10	46	P.M.	q Leonis	5	3	4	6	A.M.	Bright
6	9 20	7 14	5 8	6 16	5	11	18	P.M.	13	1	23	A.M.	t Piscium	6	18	4	16	P.M.	Dark
11	9 6	7 28	5 15	6 15	13	1	12	A.M.	20	4	0	"			4	49	"		Dark
16	8 48	7 46	5 22	6 10	20	3	5	"	27	6	36	"							Bright
									3rd Sat. Im. and Em.										
21	8 35	7 59	5 29	6 6	21	9	33	P.M.	14	9	16	P.M.	k Geminorum	5	25	11	17	P.M.	Dark
26	8 19	8 15	5 35	6 0	27	4	58	A.M.	15	0	21	A.M.							
30	8 10	8 24	5 41	5 57	28	11	27	P.M.	22	1	13	"	d Leonis	5	30	2	25	A.M.	Bright
									22	4	20	"							
																			Dark

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
NEW MOON	8n. 3h. 11m. A.M.	1 15h. 54m	23° 1'	12h. 7m	3° 10'	2h. 20m	12° 52'	7h. 29m	21° 55'	22h. 35m.	11° 4'	0h. 58m
FIRST QUARTER	15 6 15 P.M.	6 16 17	24 9 12	16 3	0 2 13	12 36	7 29	21 55 22	35 11	4 0	57 5	23
FULL MOON	20 10 5 A.M.	11 16 34	24 35 12	26 3	13 2 7	12 22	7 29	21 56 22	35 11	4 0	57 5	19
LAST QUARTER	29 4 22 P.M.	16 16 40	24 9 12	39 3	45 2 2	12 13	7 29	21 57 22	35 11	3 0	56 5	16
APOGEE	4 11 P.M.	21 16 30	22 32 12	54 4	35 1 58	12 8	7 28	22 0 22	35 11	0 0	55 5	13
PERIGEE	20 5 P.M.	26 16 6	19 50 13	9 5	38 1 55	12 9	7 27	22 3 22	36 10	57 0	55 5	10



## November Anniversary.



ANNIVERSARY OF THE LANDING OF THE PRINCE OF ORANGE, AT TORBAY, NOV. 5, 1688.

## LANDING OF THE PRINCE OF ORANGE, NOV. 5, 1688.

THE Fifth of November has a two-fold interest in our calendar, it being the anniversary of two of the most important events in our history—the discovery of “the Gunpowder Plot” in 1605, and “the Revolution” in 1688. The latter we have selected for our present illustration.

In 1688, the disgraceful acts of James II., having placed the country in a position of great difficulty, the heads of the several parties in the state joined in applying to James's son-in-law, William, Prince of Orange, for his assistance to save the public liberties; and he, at last, made up his mind to comply with their solicitations; and having arranged his preparations with consummate skill, he sailed from Holland with an army of about 14,000 men, composed partly of Dutch troops, and partly of English regiments in the service of the States, and landed at Torbay, on the coast of Devonshire, on Nov. 5, 1688. On the 8th he made a public entry into Exeter, where he remained for some days before any of the principal people of the country joined him; on the 21st he quitted Exeter on his march to London. On December 18th, the Prince, arrived with his army in London. Thus, with unparalleled ease and rapidity, was that unenviable and bloodless revolution effected, which changed the Royal line, and firmly established the Constitution of these realms.

William III. of Nassau, Prince of Orange, and King of England, was born at the Hague, in 1650. He was the son of William, Prince of Orange, and of Henrietta Maria, daughter of Charles I. He married the Princess Mary, daughter of James I. Duke of York; and succeeded to the stadtholdership in 1672; and was crowned with Mary, April 11, 1689. The year following William went to Ireland, where he defeated James at the battle of the Boyne. In 1691 he headed the confederated army in the Netherlands; took Namur in 1695; and in 1697 he was acknowledged King of England by the treaty of Ryswick. On the death of Mary, 1693, the Parliament confirmed to him the Royal title. His death was accelerated by an injury he had sustained in a fall from his horse.

The good Bishop Burnet being present, thus describes “the last scene of all” in the eventful life of this great Prince:—“The King's strength and pulse were still sinking as the difficulty of breathing increased, so that no hope was left. The Archbishop of Canterbury and I went to him on Saturday morning, and did not stir from him till he died. The Archbishop prayed on Saturday some time with him, but he was then so weak, that he could scarcely speak, but gave him his hand, as a sign that he firmly believed the truth of the Christian religion, and said he intended to receive the sacrament. His reason and all his senses were entire to the last minute. About five in the morning he desired the sacrament. When this was done, he called for the Earl of Althorpe, and gave him a charge to take care of his papers. He thanked M. Auverquerque (or Overkirk) for his long and faithful services. He took leave of the Duke of Ormond, and called for the Earl

of Portland; but before he came his voice quite failed; so he took him by the hand, and carried it to his heart with great tenderness. He was often looking up to heaven, in many short ejaculations. Between seven and eight o'clock the rattle began; the commendatory prayer was said for him, and, as it ended, he died (on Sunday, the 8th of March), in the fifty-second year of his age, having reigned thirteen years and a few days.

“Perfection is not to be expected in a sovereign until the realisation of the dreams of the Fifth-monarchy men: both as a sovereign and as a man William had faults and weaknesses and unamiable qualities; although these have all been grossly exaggerated by zealots of various and most opposite parties, the high churchmen detesting him on account of his indifference to the forms of church government, and both high and low on account of his toleration; the Jacobites heaping obloquy upon his name, because he practically upset the theory of the divine right of Kings; the Tories because he naturally preferred the Whigs, who had most contributed to his promotion; and the Republicans, then and in all subsequent times, because he did not try again the experiment which had been tried, and which had signally failed—because he was not his own opposite, a De Witt, and a Republican,—a sort of character which, rightly or wrongly, was then reproached by the vast mass of the nation, and which could no more have achieved the Revolution of 1688 than it could have changed and reformed the dynasty of the Celestial Empire. But William III. was the first of our rulers that really solved the problem of constitutional monarchy; and since his solution of that problem the duties of our princes have been easy and natural. Before his time all was riddle and uncertainty, and the constitution not understood, because it had never properly been put into practice. If now and then he stumbled, it should be remembered that what to after sovereigns has been a plain, broad, and beaten path, was then an unexplored and dark passage, where nearly every step was an experiment. Our admiration of the ability, and the real genius in state affairs, of this illustrious Prince, must rise to the highest pitch if we look closely into the complicated nature and surpassing difficulties of his situation. A stadtholder in Holland with Republic forms—a King in England and Scotland, with constitutions which had never properly been defined—the ruler, in fact, of the Dutch, the English, the Scotch, and the Irish, who had all separate interests, jealousies, and animosities;—compelled, by the very constitution which he called into life or efficacy, to trust Ministers whom there was no trusting with safety,—engaged at the same time in an almost uninterrupted war with the greatest power in Europe, or undermined by the intrigues of that power, which was even more formidable in diplomacy than in arms,—and all this with a frail state of body!—We confess that, all these circumstances considered, we are lost in wonder as to the result, and disposed to give William III. by far the foremost place of all the sovereigns that have ever worn the English crown.”



## NOVEMBER.

In this month there are scarcely any flowers left, but many trees are still beautiful, from the varying colours of their leaves and their ornamental fruit. Among the latter may be mentioned the spindle tree, the fruit of which is particularly beautiful, from its pink capsules opening so as to show the bright orange aril of the seed, which looks just dropping from it. The clusters of the bryony also exhibit beautiful shades of orange and scarlet, which are finely contrasted with the few remaining leaves. The arbutus at this season is also covered with its rich crimson strawberry-like fruit, hanging amidst its elegant evergreen leaves, and intermingled with a few remaining flowers, which look like pale waxen bells, or as Mrs. Meredith elegantly calls them, fairy lamps. The berries are still hanging on their bushes; and the purple berries of the ivy, together with the scarlet ones of the pyracantha, still remain to afford food for the birds. Amongst the plants that are ornamental at this season, few are more conspicuously so than the traveller's joy (*Clematis vitalba*), whose light feathery seed vessels hang over the hedges like plumes of feathers waving to and fro with the wind. The cones of the pine and fir tribe are now very ornamental, and vary considerably both in the form and colour. Those of the spruce fir are of a deep purple, small and erect, and those of the cedar of Lebanon are yellowish. Some look reddish, and some green, and some are short and pointed, while others are long and drooping. The plane trees look remarkably well at this season, their bald-like seed vessels hanging on long foot stalks:—

The flush of the landscape is o'er,  
The brown leaves are shed on the way  
The dye of the lone mountain flower  
Grows wan and hickens decay.

All silent the song of the thrush,  
Bewilder'd she covers in the dale;  
The blackbird sits lone on the bush—  
The fall of the leaf they bewail.

Hogg.

Several very curious kinds of fungi are to be found at this season. One very peculiar kind grows out of the ground with a single stem, scarcely thicker in the cap than at the base. It only springs up where there is decaying vegetable matter, and it is of a brilliant crimson. That very curious fungus called in Scotland siller cups (*Nidularia campanulata*) is found at this season. It consist



SILLER CUPS: NIDULARIA CAMPANULATA.

of a curious leathery cup, in which are a number of small theca, which contain the spores, and each plant looks like a bird's nest with several eggs in it. It generally grows on a twig, or a bit of rotten wood, and one has been found in a pot, growing on a wooden tally, fixed in a pot containing a greenhouse plant. The curious plant called witches' butter (*Tremella arborea*), is found upon fallen trees, or any kind of dead wood in moist places. It forms roundish, somewhat turbinate, irregular masses, of a firm, gelatinous substance, lobed and wrinkled above, slightly plicate below, of a pale, whitish hue at first, but soon changing to brown, and eventually becoming black. It was called witches' butter, partly because it is of a soft, buttery substance, and partly because it was formerly supposed that throwing it into the fire of a dwelling house, would protect the inhabitants from witches. Several kinds of *Agaricus* may also be seen, some of which have blue stems, others orange, yellow, and green, with caps of various colours, some of which are scarlet or crimson, and others have beautiful shades of purple or violet: In short, nothing can exceed the variety of these curious plants—

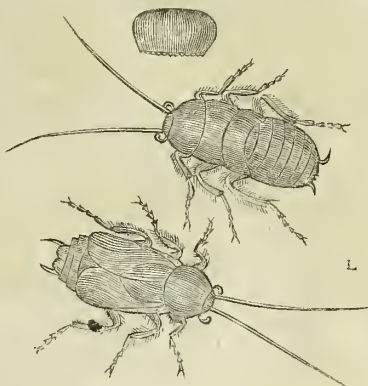
Whose tapering stems, robust or light,  
Like columns catch the searching light;  
Like fair umbrellas, fur'd or spread,  
Display their many-coloured head—  
Grey, purple, yellow, white, or brown,  
A Grecian shield, or prelate's crown,  
Like freedom's cap or friar's cowl,  
Or China's bright inverted bowl.

LEES.

The principal bird seen at this season is the snipe, though it generally leaves England about the latter end of this month. The snipe, from the nature of its food, requires a somewhat moist and cold climate. It lives principally upon earth-worms, which it finds by boring in the soft moist ground with its long beak. This beak is covered with nerves, so that it is as sensitive as the human hand. The bird also appears gifted with an extraordinary power of scent, as it scarcely ever bores in any place where it does not find a worm. Snipes are too shy to permit any one to approach near enough to observe their habits with the naked eye; but through a telescope they may be watched feeding in marshy ground near rivers, when it will be found that they strike their long bills almost up to the head into the soft mud, and almost always bring up a worm. The snipe generally draws its beak back with a jerk, and runs a few paces, holding the worm in its beak, before it swallows it; but as soon as the worm has disappeared, the snipe makes another plunge, and brings up another, and in this manner it eats an amazing quantity of worms, and sometimes slugs. The head of the snipe is admirably fitted for the manner in which the bird obtains its food. The head is heavy, and somewhat square in front, and the eyes, which are very large, are placed so far back in the head as to enable

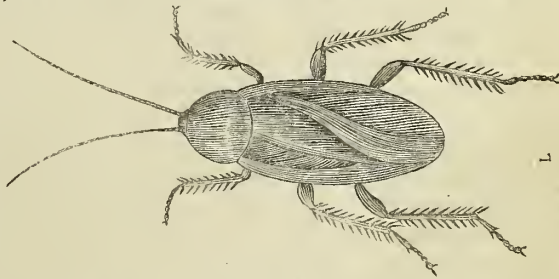
the bird to keep watch when its beak is plunged into the ground in search of food. The tip of the beak is soft and flexible, and the snipe can move it so as to take hold of any object in the ground, without unclosing the horny part of the bill. When hungry, the snipe is very active and so shy that it will not suffer any one to approach it, but after feeding it becomes more torpid, so that sportsmen when they go out to shoot these birds generally look for the marks left by the bird in boring, as they know that the snipe is not far off, and that it is probably sufficiently quiet to afford the chance of a good shot. The common wild pigeon or stock dove is a bird of passage in the south of England, seldom appearing before the end of November. They are very fond of the mast, or seed, of the beech tree. They generally appear in prodigious flights, and occasionally, in severe weather, they will join the domestic pigeons in a farm yard, though they may be easily distinguished by their smaller size and darker colour. It is said that this wild bird is the origin of all our tame pigeons. Some other kinds of birds migrate from the north to the south of Great Britain in this month. The water-wagtail is one of these birds, which generally visits marshy places on the southern coast in this month, returning back to the north about the beginning of March. Some of these birds, however, remain all the year in the southern and western parts of England. It has been often observed that when cows are feeding in low moist pastures, broods of wagtails are seen fluttering about them, in quest, no doubt, of the flies which are apt to annoy animals in such situations. They are also found, in country places, on the sills of windows, to catch the flies that are generally found in such places. The grosbeak, or hawfinch, usually visits England in this month. It feeds principally upon the fruit of the common hawthorn, breaking the hard seeds with the greatest facility. It feeds also upon other seeds, and the stones of various kinds of fruit.

There are scarcely any insects to be found in the open air in this month; but the dampness and chilliness of the weather inducing larger fires to be kept up,



BLATTA ORIENTALIS.

degrees the sides of it have attained a proper firmness. The outer part of this capsule is at first white, but by degrees becomes brown. If this receptacle for the eggs is more closely examined, it will be seen that one of the two longer margins is very finely toothed, and is composed of two layers, and so constructed that the teeth of one of the layers easily go into the spaces between the teeth of the other layer. This margin is also so firmly united by means of a gummy substance, that it might be easier opened at any other part than at the toothed edge. As soon as the young are hatched and have quitted the egg, they emit a fluid from their mouths, by which they soften the cement that united the two layers of the capsule together, and thus they contrive to open the door of their prison-house. The anxious mother lays the capsule containing her eggs on clothes, leather, and even on walls, taking abundant care to cover it with a portion of the same kind of material as that on which she has laid it. She even carries this feeling so far as to scrape the lime from the wall, and to spread it over the capsule. Black beetles are fond of warm places, and they are found in the greatest abundance in kitchens and bake-houses. Their favourite food is bread and flour; but they will eat almost anything. They avoid the light and hide themselves in dark places during the day, but they come out of their hiding-places in the evening to feed. The wings and wing-cases of the male are one-third shorter than the body. The female is without wings, and has only very short rounded wing-cases, which are separated from each other. The Germans have a cockroach, which is still more troublesome than ours. It is smaller than the common black beetle, and of a dirty yellow colour. These creatures are excessively troublesome, and will even eat the blacking off boots. The American cockroach (*Blatta americana*), is red, and it is nearly twice as large as the black beetle. It has large wings, and very long antennae. It has been brought to England by the American ships, and as, wherever it has been introduced, it has destroyed the oriental cockroach, it



BLATTA AMERICANA.

will probably, in the course of a few years, as completely extirpate the ordinary kind as the Hanoverian rats have extirpated those of Norway. The American cockroach is a most voracious feeder, and as it is particularly fond of sugar, it is frequently found in the shops of grocers and other persons who deal in that commodity. The female of the American cockroach is much larger than the male; and she has very large wings, and tremendously long horny antennae.





NATIONAL SPORT, SWITZERLAND—  
CHAMIOS HUNT.

M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BAIRNS				EQUA- TION OF TIME.	Day of the Year
			Rises.	Sets.	DECLINA- TION NORTH.		Rises.	Souths.	Sets.		Before Sunrise. O'Clock 2h. 4h. 6h.	Moon's Age.	After Sunset. O'Clock 6h. 8h. 10h.		Morning	Afternoon	Subt.			
1	W	The Pleiades souths 10h. 57m. P.M., 62 deg. high	7 46 3	52 21	46		0 49					23			8 40	9 15	10 53	335		
2	Th	α Andromede souths at 7h. 15m.	7 47 3	52 21	56		1 52	7 48	1 35			24			9 45	10 20	10 31	336		
3	F	γ Pegasi souths at 7h. 18m.	7 48 3	51 22	4		2 55	8 31	2 0			25			10 50	11 25	10 7	337		
4	S	α Arietis souths at 9h. 5m.	7 49 3	51 22	13		3 55	9 14	2 25			26			11 55		9 43	338		
5	S	2ND S. IN ADVENT	7 51 3	51 22	21		5 0	10 0	2 54			27			0 15	0 40	9 18	339		
6	M	St. Nicholas	7 52 3	51 22	28		6 2	10 47	3 27			28			0 57	1 20	8 53	340		
7	Tu	α Ceti souths at 9h. 50m. P.M.	7 53 3	50 22	35		7 2	11 36	4 7			1			1 35	1 55	8 28	341		
8	W	Rigel souths at 11h. 59m. P.M., 30 deg. high	7 55 3	50 22	42		7 59		4 54			2			2 10	2 30	8 1	342		
9	Th	Year 1264 of the Mohammedian era commences	7 56 3	50 22	48		8 51	1 19	5 48			3			2 50	3 45	7 7	343		
10	F	Grouse shooting ends	7 57 3	49 22	54		9 37	2 11	6 48			4			3 25	4 20	6 40	344		
11	S	Capella souths at 11h. 45m.	7 58 3	49 22	59		10 18	3 4	7 56			5			4 0	5 0	6 12	345		
12	S	3RDS. IN ADVENT	7 59 3	49 23	4		10 54	3 56	9 7			6			4 40	5 0	6 12	346		
13	M	β Tauri souths at 11h. 48m.	8 0 3	49 23	9		11 24	4 47	10 21			7			5 25	5 45	5 44	347		
14	Tu	John Claudius Loudon, the Botanist died, 1843	8 0 3	49 23	13		11 53	5 38	11 35			8			6 10	6 35	5 15	348		
15	W	Ember Week	8 1 3	49 23	16		Afternoon	6 29	Morning			9			7 0	7 30	4 46	349		
16	Th	Camb. Term ends	8 2 3	49 23	19		0 47	7 21	0 51			10			8 5	8 40	4 17	350		
17	F	Oxford Term ends	8 3 3	49 23	22		1 19	8 14	2 7			11			9 15	9 50	3 48	351		
18	S	Sun in Sagittarius	8 4 3	50 23	24		1 52	9 10	3 24			12			10 30	11 5	3 18	352		
19	S	4TH S. IN ADVENT	8 5 3	50 23	25		2 29	10 7	4 40			13			11 35		2 49	353		
20	M	The Sun rises 4 deg. S. of S.E. by E.	8 5 3	51 23	27		3 15	11 5	5 53			14			0 8	0 35	2 19	354		
21	Tu	St. Thomas	8 6 3	51 23	27		4 9		6 59			15			1 0	1 30	1 49	355		
22	W	Winter commences	8 6 3	51 23	27		5 8	0 2	7 56			16			1 54	2 20	1 19	356		
23	Th	The Sun sets 4 deg. S. of S.W. by W.	8 6 3	52 23	27		6 10	1 53	8 45			17			2 40	3 5	0 49	357		
24	F	Christmas Eve	8 7 3	52 23	26		7 20	2 44	9 26			18			3 25	3 50	0 19	358		
25	S	CHRISTMAS DAY	8 7 3	53 23	25		8 26	3 32	9 59			19			4 10	4 30		359		
26	S	St. Stephen	8 7 3	53 23	23		9 32	4 18	10 28			20			4 50	5 10	0 40	360		
27	M	St. John the Evan.	8 8 3	54 23	21		10 35	5 1	10 54			21			5 30	5 50	1 10	361		
28	Tu	Innocents Day	8 8 3	55 23	19		11 38	5 44	11 18			22			6 9	6 30	1 40	362		
29	W	Sun in Capricorn.	8 9 3	56 23	16		Morning	6 26	11 40			23			6 50	7 10	2 9	363		
30	Th	α Orionis souths at 11h. 12m. P.M., 46 deg. high	8 9 3	57 23	12		0 40	7 9	Afternoon			24			7 35	8 5	2 38	364		
31	F	St. Silvester	8 9 3	58 23	8		1 43	7 53	0 28						8 35	9 10	3 7	365		



## DECEMBER.

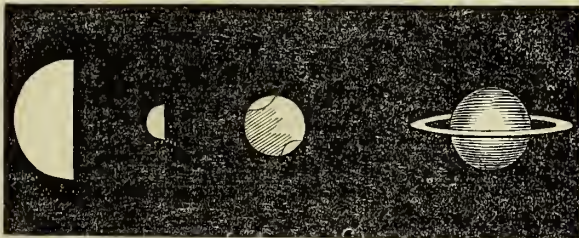
THE MOON rises after midnight and before noon from the 1st to the 14th; between noon and midnight between the 14th and the 28th; and after midnight on the 29th and 30th. She sets before midnight till the 14th, and after midnight from that day.

On the 1st at 11h. A.M., she is on the Equator, and going S.; from the 1st to the 4th in Virgo, her crescent is seen on the morning of the 3rd, a few degs. N.W. of Spica Virginis. On the 4th and 5th, she is in Libra; on the 7th, at 8h. 31m. P.M. is new, but without an eclipse, as she is then 4½ degs. from the line joining the Sun and the Earth; on the 7th and 8th, she is in Ophiuchus; on the 9th, 10th, and 11th, in Aquila; on the 10th, at a considerable distance under Alpha Aquila, and sets under Delphinus; on the 12th and 13th, she is in Aquarius; on the 14th, 15th, and 16th, in Pisces. On the 15th, at 1h. P.M., she is on the Equator, going N.; and at 3h. 26m. A.M., she enters her first quarter, her course being towards Aldebaran; on the 17th, she is seen several degs. W. of the line joining Alpha Arietis and Alpha Ceti; and on the 18th, she is E. of the same line. On the 17th and 18th, she is in Aries; on the 19th, 20th, and 21st, in Taurus, passing at some distance below the Pleiades; she is seen W. of Aldebaran on the 19th; and E. of it on the 20th; approaching the Milky Way, which she crosses during the 21st, on which day at 10h. 8m. P.M., she is full, but without an eclipse, as she is then 5 degs. from the line joining the Sun and Earth produced to the Moon. On the 21st, she is in Gemini; on the 23rd and 24th, she is in Cancer; on the former day she is W., and on the latter E. of the line joining Pollux and Procyon; on the 25th, 26th, 27th, and 28th, she is in Leo, being W. of Regulus to the 26th, and E. of it afterwards. On the 28th, at 8h. P.M., she is on the Equator going S., and to the end of the month she is in Virgo; on the 29th, at 1h. 48m., she enters her last quarter.

MERCURY will be in the constellation of Libra till the 3rd; in Scorpio from the 4th to the 18th, on which day he passes into Ophiuchus and remains there till the end of the year.

He rises on the 1st, at 6h. 33m. A.M.; on the 6th, at 6h. 1m., (the Moon rising at the same time); on the 11th, at 5h. 54m.; on the 16th, at 6h. 3m.; on the 21st, at 6h. 19m.; and on the 26th, at 6h. 39m. A.M.; preceding the times of sun-rising by 1h. 13m., 1h. 51m., 2h. 4m., 1h. 59m., 1h. 57m., and 1h. 28m. respectively. These intervals of time are larger than any other during the year; this month, therefore, is very favourable for observing this Planet.

APPEARANCE OF  
VENUS ON THE 14TH. MERCURY ON THE 14TH. MARS AND SATURN DURING THE 14TH.



Scale 40" of arc to an inch.

On the 1st, he rises midway between E.S.E. and S.E. by E.; on the 23rd, S.E. by E., and after this time a little S. of the latter point. He is moving W. among the stars till the 5th, and E. after this day. He is situated on the 1st, in a line drawn from Antares through Beta Scorpio produced 4°, and he is 13° N.W. of the former star. On the 5th, he is in the same line, but at 6° distance from Beta Scorpio, and 15° from Antares; he then moves E., and on the 10th, is situated as on the 1st; on the 14th, he is 1° N. of Beta Scorpio; on the 19th, he is 6° N. of Antares; on the 26th, he is 14° E. of Beta Scorpio; and 10° N.E. of Antares; on the last day he is 17° from Antares, and in a line drawn from the Pole Star through Alpha Ophiuchi, produced 36°. The Moon is near to Mercury on the morning of the 6th, being only 1° N. of the Planet.

VENUS will be in the constellation of Virgo till the 15th, and in that of Libra after that day.

She is the morning star all the month; and rises at 3h. 20m. A.M. on the 1st; at 3h. 30m. A.M. on the 11th; at 3h. 48m. A.M. on the 21st; and at 4h. 8m. A.M. on the last day; at the S. by E. on the 1st, and on the 30th: at the E.S.E. points of the horizon, during the month the points of the horizon where she rises are between these.

During the month she souths at about 8h. 50m. A.M., on the 1st, at an altitude of 32°, and on the last day, at an altitude of 23°.

On the 1st, she is a few degs. N.E. of Spica Virginis; on the 12th, she is in the line produced joining the Pole Star and Arcturus, and at the distance of 30° S. of the latter star, and at 13° distance E. of Spica Virginis.

On the 21st, she is 3° N. of Alpha Libra; and on the last day she is in a line joining the Pole Star and Alpha Corona Borealis, and 43° distance from the latter star.

During the morning of the 3rd day, the Moon and Venus are very near together; the Planet is a very little N. of the Moon.

MARS will be in the constellation Aries throughout the month. He sets near the W.N.W. On the 1st, at 4h. 25m. A.M.; on the 15th, at 3h. 36m. A.M.; and on the last day, at 2h. 56m. A.M. He souths at 8h. 13m. P.M. on the 1st; at 8h. 22m. on the 15th; and at 7h. 33m. on the 31st, at an altitude of 51, 52, and 53° respectively. To December 7th, he is stationary among the stars, and he is 15° S. of Alpha Arietis; on the 18th, he is 9° S. of Alpha Arietis; and after this time he moves E. from that star. He is a bright and conspicuous object throughout the month.

JUPITER will be in the constellation Gemini. He rises near the N.E. by N.; on the 1st, at 6h. 36m. P.M., and on the last at 4h. 23m. P.M. He souths on the same days at 2h. 48m., and at 0h. 36m. A.M., at an altitude of 61° on every day.

During the month he is moving slowly westward, and away from Castor and Pollux; at the end of the month he is 11° from the former, and 8° from the latter. The Moon passes him at 6h. in the morning of the 23rd.

SATURN rises and sets at the same points of the horizon, and souths at the same altitude as in last month. He rises a little after noon at the beginning, and before noon at the end of the month. He souths at 5h. 56m. P.M. on the 1st, and at 4h. 6m. P.M. on the 31st; and 9h. 16m. P.M. on the same days respectively. His motion among the stars is slowly towards the E., and he is situated as in last month. The Moon passes him at 4b. in the morning of the 14th.

URANUS sets at 3° S. of W. by N.; on the 1st, at 2h. 48m. A.M., and on the 31st, at 0h. 48m. A.M. He souths on the 15th day at 7h. 18m. P.M. The Moon passes him during the afternoon of the 16th.

## TIMES OF THE SOUTHING, &amp;c. OF THE PRINCIPAL FIXED STARS WHICH PASS THE MERIDIAN BEFORE MIDNIGHT.

Stars Names.	Magnitude	Time of southing during the evening of the 1st day.		Height in degrees above the horizon S (South) N (North)	Setting.	
		h.	m.		Number of hours from southing.	Point of the horizon.
Alpha Cephei	3	4	35	79°N	Never Sets	
Epsilon Pegasi	2	4	57	48s	6½	Near W. by N.
Formalhaut	1	6	9	8s	2½	S.W. by S.
Alpha Pegasi.	2	6	17	24s	7½	W.N.W.
Alpha Andromedæ	1	7	20	67s	8½	Near N.W.
Gamma Pegasi	2	7	25	53s	7½	W.N.W.
Alpha Cassiopeæ	3	7	51	86°N	Never Sets	
Alpha Arietis	3	9	18	61s	8½	Near W.S.W.
Alpha Ceti	1	10	13	42s	6½	Between W. and W. by N.
Alpha Persel	2	10	32	88s	Never Sets	
Aldebaran	1	11	46	55s	7½	Near W.N.W.

## POSITION OF THE CONSTELLATIONS RISING, ON THE MERIDIAN, AND SETTING ON THE 1st. DAY AT 10H. P.M.

Constellations Rising.	Constellations on the Meridian	Constellations Setting.
Canes Venatici N.N.E.	Draco, 10° above the N horizon	The legs of Hercules in N.W. by W.
Leo E.N.E	Ursa Minor 35° above the N. horizon	Sagitta in W.N.W.
The head of Hydra E.	Polaris	Aquila in W.N.W.
The flank of Monoceros E. by S.	Persues between Polaris and the Zenith	The legs of Aquarius in S.W. by W.
The head of Canis Major S.E. by E.	Aries 55° above the S. horizon	
Lepus S.E. by S.	The head of Cetus 40° above the S. horizon	

Days of the Month.	Length of Day, or number of hours between sunrise and sunset.	Number of Hours and Minutes the day has decreased since longest Day.	Time of Day break, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.								OCCULTATIONS OF STARS BY THE MOON.							
					Eclipses of								Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.				
					1st. Sat.				2nd. Sat.											
					Emersion.				Emersion											
					h.	m.	m.		h.	m.	m.						d.	h.	m.	
1	H. M.	H. M.	H. M.	H. M.	H. M.	h. <td>m.<td>m.<td><td>7</td><td>10</td><td>30</td><td>P. M.</td><td>e Piscium</td><td>5</td><td>16</td><td>6</td><td>46</td><td>P. M.</td><td>Dark</td></td></td></td>	m. <td>m.<td><td>7</td><td>10</td><td>30</td><td>P. M.</td><td>e Piscium</td><td>5</td><td>16</td><td>6</td><td>46</td><td>P. M.</td><td>Dark</td></td></td>	m. <td><td>7</td><td>10</td><td>30</td><td>P. M.</td><td>e Piscium</td><td>5</td><td>16</td><td>6</td><td>46</td><td>P. M.</td><td>Dark</td></td>	<td>7</td> <td>10</td> <td>30</td> <td>P. M.</td> <td>e Piscium</td> <td>5</td> <td>16</td> <td>6</td> <td>46</td> <td>P. M.</td> <td>Dark</td>	7	10	30	P. M.	e Piscium	5	16	6	46	P. M.	Dark
6	8 6	8 28	5 42A.M.	5 56P.M.	5 56	4	6	52	A.M.	15	1	8	A. M.			16	6	46	P. M.	Bright
11	7 59	8 35	5 47	5 56	5 56	6	1	20		22	3	44		Lambda Geminorum	5	23	3	59	A. M.	Bright
16	7 51	8 43	5 51	5 56	5 56	7	7	48	P.M.	29	6	21				5	3			Dark
	7 47	8 47	5 55	5 56	5 56	14	9	42		20	5	7	A. M.							
21	7 45	The Shortest Day	5 59	5 58	5 58	21	11	36	P.M.	23	6	4		3rd. Sat.						
26	7 46	0 1	6 1	5 59	5 59	23	6	4		27	7	1	A.M.							
31	7 49	0 4	6 2	6 5	6 5	27	7	1	A.M.	29	1	30								
						30	7	58	P.M.	30	7	58	P.M.							
										27	9	7	P. M.	Pi Leonis	4	26	5	52	A. M.	Bright
																				Dark
																				Dark

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth, in each Lunation.

	Days of the Month.	Time of Day break, or beginning of Twilight.	Time of Twilight ending.
NEW MOON ..	7d. 8h. 31m. P.M.	1	15h. 43m
FIRST QUARTER ..	15 3 26 A.M.	6	15 36
FULL MOON ..	21 10 8 A.M.	11	15 45
LAST QUARTER ..	29 1 48 P.M.	16	16 5
APOGEE ..	2 2 P.M.	21	16 30
PERIGEE ..	18 1 P.M.	26	16 58
APOGEE ..	30 10 A.M.		

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	15h. 43m	17° 22'	13h. 26m	6° 53'	1b. 54m	12° 15'	7h. 25m.	22° 7'	22h. 36m.	10° 53'	0h. 55m	5° 8'
6	15 36	16 33	13 44	8 15	1 54	12 27	7 23	22 11	22 37	10 48	0 54	5 6
11	15 45	17 16	14 3	9 43	1 55	12 44	7 21	22 16	22 38	10 41	0 54	5 5
16	16 5	18 46	14 23	11 15	1 58	13 6	7 19	22 21	22 39	10 34	0 54	5 4
21	16 30	20 27	14 43	12 47	2 1	13 33	7 17	22 26	22 40	10 27	0 54	5 3
26	16 58	22 0	15 5	14 17	2 6	14 3	7 14	22 32	22 41	10 18	0 54	5 3



## December Anniversary.



MERRY CHRISTMAS.—DRAWN BY KENNY MEADOWS.

## THE ENGLISH CHRISTMAS HOME.\*

A loud and laughing welcome to the merry Christmas bells !  
 All hail, with happy gladness, to the well-known chaunt that swells  
 We list the pealing anthem chord, we hear the midnight strain,  
 And love the tidings that proclaim Old Christmas once again.  
 But there must be a melody of purer, deeper sound,  
 A rich key-note, whose echo runs through all the music round ;  
 Let kindly voices ring beneath low roof or palace dome,  
 For these alone are carol chimes that bless a Christmas Home

## CHORUS.

Then fill once more from Bounty's store red wine or nut-brown foam,  
 And drink to kindly voices in an English Christmas Home !

A hlythe and joyous welcome to the berries and the leaves  
 That hang about our household-walls in dark and rustling sheaves :  
 Up with the holly and the hay, set laurel on the hoard,  
 And let the mistletoe look down while pledging-draughts are poured.  
 But there must be some hallowed bloom to garland with the rest,—  
 All, all must hring toward the wreath some flowrets in the breast ;  
 For though green boughs may thickly grace low roof or palace dome,  
 Warm hearts alone will truly serve to deck a Christmas Home !

## CHORUS.

Then fill once more from Bounty's store red wine or nut-brown foam,  
 And drink to honest hearts within an English Christmas Home !

\* The Poetry by Eliza Cook. The Music by Vincent Wallace, Composer of the Opera of "Maritana," appeared in the ILLUSTRATED LONDON NEWS, December 20, 1845.



## DECEMBER.

Among the few plants that are ornamental at this season, one of the most conspicuous is the holly, the beautiful red berries of which look particularly brilliant from the want of ornament in most of the other trees and shrubs.

O reader, hast thou ever stood to sea  
The holly tree?

The eye that contemplates it well, perceives  
Its glossy leaves  
Order'd by an intelligence, so wise  
As might confound the Atheist's sophistries.

Below a circling fence its leaves are seen,  
Wrinkled and keen;  
No grazing cattle through their prickly round  
Can reach to wound;  
But as they grow where nothing is to fear,  
Smooth and unarm'd the pointless leaves appear.

Thns, though abroad perchance I might appear  
Harsh and austere,

To those who on my leisure would intrude  
Reserv'd and rude;

Gentle at home amid my friends I'd be,  
Like the high leaves upon the holly tree!

The holly and the mistletoe, it is well known, are used to decorate houses at Christmas; but very few people are aware of the origin of the custom. The holly was dedicated to Saturn; and, as the *fêtes* of that deity were celebrated in December, and the Romans were accustomed to decorate their houses with holly, the early Christians decorated their houses in the same manner, while they were celebrating their festival at Christmas, in order that they might escape observation. The mistletoe was dedicated to Friga, the Venus of the Scandinavians, and, as she was the goddess of love, it was formerly a custom to kiss under the mistletoe.

As at this season, the leaves have generally fallen, the peculiarities in the growth of trees are more perceptible. Amongst others, may be observed occasionally that curious mode of growth called inosculation, where two trees unite together, or where a branch crossing a trunk, becomes united to it. There are

And should my youth, as youth is apt, I know,

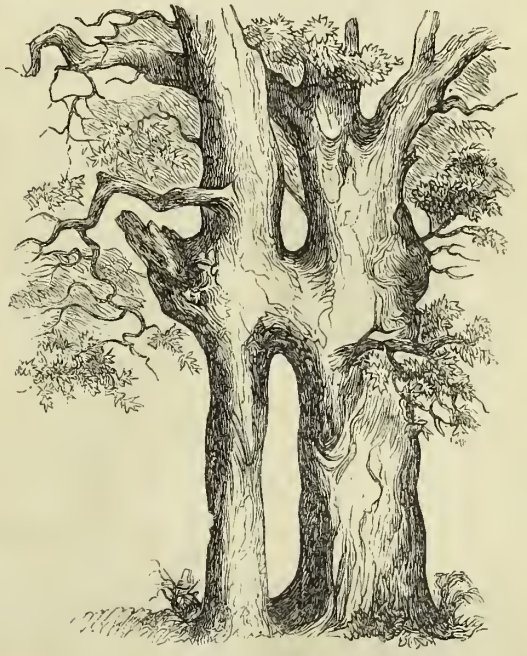
Some harshness show,  
All vain asperities I day by day  
Would wear away,  
Till the smooth temper of my age should be  
Like the high leaves upon the holly-tree.

And as, when all the summer trees are seen  
So bright and green,  
The holly-leaves their fadeless hues display  
Less bright than they;  
But, when the bare and wintry woods we see,  
What then so cheerful as the holly-tree?

So serious should my youth appear among  
The thoughtless throng;  
So would I seem amid the young and gay,  
More grave than they;  
That in my age as cheerful I might be  
As the green winter of the holly-tree.

SOUTHER.

this season, and they are generally found in the neighbourhood of dwelling-houses, picking up any particles of food they can find. If the weather should be mild, the hedge-sparrow may sometimes be heard singing, even in the middle of December.



AN INOSCULATED OAK.

Very few living insects are to be met with in the open air in this month, though those which infest dwelling houses are often in a state of great activity. One whose ravages are very extensive, is the bacon beetle, or weevil as it is generally

termed (*Dermestes lardarius*). The larva of this insect is particularly partial to the skin of any animal that falls in its way; and consequently it destroys stuffed animals and birds in collections of natural history, whenever it can gain access to them. It attacks hams and bacon for their skin, but as it is very gluttonous it extends its ravages to the flesh. The larva is long and slender, its body being nearly round, and consisting of thirteen segments, which are blackish brown in the middle and white at the edge. The whole body is furnished with bristle-shaped reddish brown hairs. The beetle is black at the head and tail, with an ash-grey band across the back, having three black spots on each wing case. Sometimes this band takes a yellowish tinge, and the whole beetle is furnished here and there with tufts of ash-grey or yellowish-grey hairs. The beetle is frequently seen in December and January, but the weevils are most destructive in spring. The larvæ are very seldom seen, as they conceal themselves in the bodies they attack, and their presence can only be guessed by finding occasionally their cast-off skins, as they change their skins several times while in their larvæ state. Whenever, therefore, little rolls of black skin are found near the places where ham and bacon are kept, or in cases containing objects of natural history, it is probable the bacon beetle has attacked them, and a careful examination should be made to endeavour to discover and destroy the larvæ. Search may also be made for the clothes moth during this month, as, though it generally passes the winter in a torpid state, if its eggs are found and destroyed, it will prevent the mischief the caterpillar would otherwise do in spring. The common clothes moth generally lays its eggs on the woollen or fur articles it intends to destroy; and when its larva appears, it begins to eat immediately, and, with the hairs or wool it has gnawed off, it forms a silken case or tube, under the protection of which it devours the substance of the article on which it has fixed its abode. This tube is of parchment-like consistence, and quite white. It is cylindrical in its shape, and furnished at both ends with a kind of flap, which the insect can raise at pleasure, and crawl out; or it can project the front part of its body with its fore feet through the opening, so as to crawl about without removing the rest of its body from the tube, which it drags about with it. There are several kinds of clothes moths, and the caterpillars of some of them bury themselves in the article on which they feed, instead of making themselves a silken tube. The moths also differ very much in appearance: the commonest kind is of a light buff; but one species (*Pinea tapetzella*) is nearly black, with the tips of its larger wings white, or pale grey.

The eggs of insects should be sought for in this month as well as in January; and rose trees should be examined to see if their bark has been penetrated by the saw-fly, which wounds the bark with her saw, and then deposits in it her eggs, the caterpillars from which are extremely destructive to the young leaves of the rose. The eggs of a kind of leaf-roller, which is also very destructive to the rose, are sometimes found in little yellow patches on the glass of green-houses, and other places where they are not likely to be disturbed. The hearth cricket (*Acheta domestica*) is particularly lively at this season. It passes the summer concealed in the crevices of walls, or among heaps of rubbish; but, towards winter, it takes refuge in the house, where it generally breeds about Christmas. The noise of the cricket is made by its wings.



DERMESTES LARDARIUS.



AN INOSCULATED BEECH.

several examples of trees of this kind in Epping Forest; and it is said that it was observing this curious manner of growth that gave the first idea of grafting. In the gardens, the laurustinus is generally in flower; as also the newly-introduced *Garrya elliptica*, with its long, drooping spikes of flowers, which bear some resemblance to those of Love-lies-bleeding, but are of a lighter texture, and of a pale green colour. *Chimonanthus fragrans* now opens its pale-yellowish, buff-coloured flowers, which have a delightful fragrance. In the green-houses the camellias are in all their beauty; as are the chrysanthemums, both in the open air and under glass.

The principal bird deserving notice is the woodcock, which generally appears in this country about the latter end of November, or the beginning of December. As woodcocks live in the same manner as snipes, sportsmen guess where they are to be found by the perforations or borings made by their bills in the ground. Woodcocks are naturally very shy birds, rarely taking wing by day, unless disturbed; but in the evening, all, as if by common consent, quit the woods nearly at the same instant, and wander over the snow-covered meadows in search of moist places, for food, retiring to their hiding places just at the dawn of day. The bill of the woodcock, like that of the snipe, is furnished with nerves that render it exceedingly sensitive; and the tip is also so flexible, that it can easily pick up a worm, or even a small insect, without opening the bill. "The enormous quantity of worms that these birds eat," Rennie observes, "is scarcely credible; indeed, it would be the constant labour of one person to procure such food for two or three woodcocks." The woodcock is so much like the snipe when seen at a little distance, that it would be difficult to distinguish between them, were it not for the habit which the woodcock has, in rising from the ground, of throwing up its tail feathers in the same way as the peacock does its tail, when the white tips of the woodcock's tail feathers distinguish it from the snipe, the tail of which is dark brown. The redbreast, the wren, the hedge-sparrow, and the tom tit are almost the only small birds seen in the open air at



THE BLACK CLOTHES-MOTH.



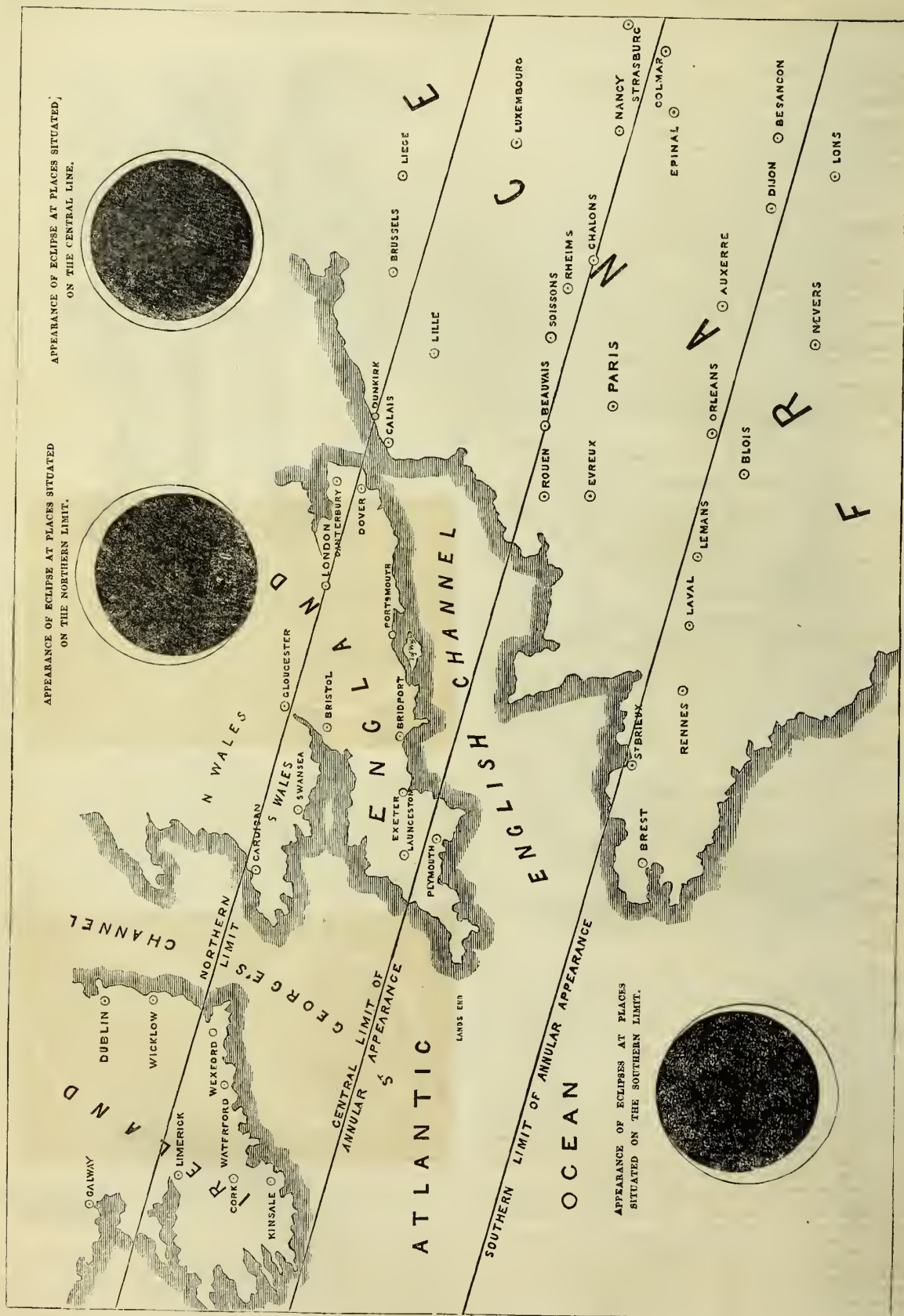


CHART OF THAT PORTION OF IRELAND, WALES, ENGLAND, AND FRANCE, TO WHICH THE SOLAR ECLIPSE OF OCTOBER 9TH, 1847, WILL BE ANNULAR.



## HIGH WATER.

A TABLE of the difference between the Times of High Water at London Bridge and at the chief Ports and Places in Great Britain and Ireland, as formed from local Tide Tables, and the best works on Navigation:—

## COAST OF ENGLAND.

			M.				M.
St. Agnes Lights	..	Add	2 23	Hull	..	..	Add 3 53
Aldborough	..	..	8 38	Humber River Entrance	..	..	3 23
Alderney Island	..	..	4 38	Ipswich	..	..	9 53
Arundel	..	..	9 8	Lands-end	..	..	2 23
Barnstaple Bar	..	..	3 23	Liverpool Dock	..	..	9 15
Beachy Head	..	..	9 43	Lynn Deep	..	..	3 58
Bridgewater	..	..	4 38	Margate Pier	..	..	Subt. 2 2
Bridlington	..	..	2 23	Newcastle	..	..	Add 1 53
Bridport	..	..	3 53	Newhaven	..	..	9 43
Brighton	..	..	9 31	Nore Light	..	..	Subt. 0 58
Bristol	..	..	5 8	Orfordness	..	..	Add 8 33
Chatham	..	Subt.	1 13	Penzance	..	..	2 23
Chichester Harbour	..	Add	9 23	Plymouth Dock-yard	..	..	3 26
Coquet Island	..	..	0 38	Portland Roads	..	..	4 9
Cromer	..	..	3 49	Portsmouth Dock-yard	..	..	9 33
Cornwall Cape	..	..	2 23	Ramsgate Harbour	..	..	9 13
Cuckold's Point	..	Subt.	0 6	Rye Harbour	..	..	8 33
Dartmouth Harbour	..	Add	3 58	Scarborough	..	..	2 18
Deal	..	..	9 8	Scilly Islands	..	..	2 25
Dover Pier	..	..	9 3	Sheerness Dock-yard	..	Subt.	1 28
Downs (Stream)	..	..	0 38	Shields	..	..	Add 0 53
Dungeness	..	..	8 43	Shoreham Harbour	..	..	9 8
Eddystone Lighthouse	..	..	3 8	Sonhampton	..	..	9 33
Exmouth Bars	..	..	4 18	Spithead (Stream)	..	..	7 23
Falmouth	..	..	3 8	Spurn Lights	..	..	3 13
Flamborough Head	..	..	2 23	Sunderland	..	..	0 53
Foreland (North)	..	..	9 33	Torbay	..	..	3 58
Foreland (South)	..	..	9 8	Tynemouth Bar	..	..	0 43
Gravesend	..	Subt.	0 37	Weymouth	..	..	4 23
Guernsey Pier	..	Add	4 23	Whitby	..	..	1 38
Harwich	..	..	9 23	Whitehaven	..	Subt.	2 51
Hastings	..	..	8 29	Yarmouth Roads	..	..	6 33

## COAST OF WALES.

			M.	M.			M.	M.		
Aberdovy	..	..	Add	5	25	Cardigan Bar	..	Add	4	53
Aberystwith	..	..	..	5	23	Caernarvon Bar	..	..	7	13
Barmouth	..	..	..	5	48	Holyhead Bay	..	..	7	53
Beaumaris	..	..	..	8	19	Millford Haven	..	..	3	38
Carmarthen Bar	..	..	..	4	3	Pembroke Dockyard	..	..	3	57
Caldy Island	..	..	..	3	53	Swansea Bay	..	..	3	47

## COAST OF SCOTLAND.

M. M.				H. M.			
Aberdeen Bar	..	Subt.	0 56	Kirkcudbright	..	Add	9 8
Arran Island	..	Add	9 8	Leith Pier	..	..	0 15
Banff	..	Subt.	1 26	Lerwick Harbour	..	..	8 23
Cantyre (Mull)	..	Add	6 52	Lewis Island	..	..	3 53
Cromarty	..	..	9 38	Montrose	..	Subt.	0 22
Dee River	..	..	10 38	Pentland Frith	..	Add	8 23
Dunbar	..	..	0 13	Perth	..	..	3 21
Duncansby Head	..	..	6 8	Peterhead	..	Subt.	1 22
Dundee	..	..	0 18	Port Glasgow	..	Add	9 38
Eyemouth	..	..	0 8	Port Patrick	..	..	8 54
Galloway (Mull)	..	..	9 8	Stromness	..	..	6 53
Greenock	..	..	9 38	Tay Bar	..	Subt.	0 2
Inverness	..	..	9 53	Wick	..	Add	9 0

## COAST OF IRELAND.

			M.				M.
Achill Head	..	..	Add	3 53	Dublin Bar	..	Add 9 5
Bally Shannan Bar	..	..	..	3 23	Dundalk Bar	..	.. 8 53
Baltimore	..	..	..	1 38	Dungarvon	..	.. 2 23
Bantry Bay	..	..	..	1 39	Galway Bay	..	.. 2 23
Belfast	..	..	..	7 58	Hilly Harbour	..	.. 9 1
Carlingford Bar	..	..	..	8 33	Killybegs	..	.. 4 37
Cape Clear	..	..	..	1 53	Kingstown Harbour	..	.. 9 6
Carrickfergus	..	..	..	8 22	Kingsale Harbour	..	.. 2 23
Cork Harbour	..	..	..	2 23	Londonderry	..	.. 3 54
Dingle Bay	..	..	..	1 23	Shannon Mouth	..	.. 1 43
Donaghadee Pier	..	..	..	7 8	Sligo Bay	..	.. 3 52
Donegal	..	..	..	2 58	Tralee Bay	..	.. 1 38
Downing's Bay	..	..	..	3 13	Waterford Harbour	..	.. 3 43
Drogheda	..	..	..	8 34	Wexford Harbour	..	.. 5 22

## COAST OF THE ISLE OF MAN.

Alr Point	..	..	Add	<sup>n.</sup> 9	<sup>m.</sup> 0	Douglas Harbonr	..	Add	<sup>n.</sup> 9	<sup>m.</sup> 3
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## COAST OF THE ISLE OF WIGHT.

Cowes	..	..	..	Add	M. 8 38	Needles Point	..	..	Add	M. 7 38
Dunnose	..	..	..	..	M. 7 4	Yarmouth	..	..	..	M. 7 24
				Newport	..	..	Add	9 59		

To find the time of High Water at any of these places we must proceed as follows:—Find the Time of High Water at London Bridge as given in the Calendar, and add the number opposite to the given place, or subtract it according as it has Add or Subt. prefixed to it; and the sum or difference is the time of High Water at that place. Attention must be paid to the following Notes:—

I. When the two numbers are added, if the sum be more than 12 hours, reject the 12 hours, and the remainder is the time of High Water in the afternoon, if the morning tide at London Bridge was taken, or the next day's morning tide, if the afternoon tide at London Bridge was taken.

II. If the interval at the given place is to be subtracted, and is greater than the time of High Water at London Bridge, increase the time at London Bridge by 12h., and then subtract, and the remainder is the time of High Water at the given place in the morning, if the afternoon tide at London Bridge was taken, or in the afternoon of the preceding day, if the morning tide was taken.

EXAMPLES.—At what times, on January 1st, is it high water at St. Agnes Lights?

The times of high water at London Bridge on that day are .. 1h. 42m. A.M., and 2h. 6m. P.M., in the almanack  
St. Agnes Lights (from table) add 2h. 23m. .. 2h. 23m.

The sum is the time of high water.. 4h. 5m. {morn- } 4h. 29m. afternoon  
ing }

Ex. 2.—At what times at Aldborough, on January 6th?

The times of high water in the .. 4h. 51m. morning and 5h. 9m. afternoon  
Almanack are .. 4h. 51m. morning and 5h. 9m. afternoon  
Aldborough (from table) add 8h. 38m. .. 8h. 38m. ..

13h. 29m.

13h. 47m.

Reject 12h. in both cases, according to Note I; and the times are 1h. 29m. on the afternoon of the 6th, and 1h. 47m. in the morning of the 7th.

To find the time of first high water on January 6th, it will be necessary to use the time in the Almanack for the afternoon of the 5th.

It must be borne in mind that the varying pressure of the atmosphere as well as the direction of strong winds, have a great effect on both the times and the heights of High Water. Thus, in the North Sea, a strong N.N.W. gale and a low barometer, will raise the surface two or three feet higher than usual, and cause the tide to flow half an hour longer all along the coast to London, than the predicted times in the calendar.

An E., a S.E., or a S.W. wind, will produce an opposite effect, so that at times the prediction may be in error half an hour or more.—(See foot note to page 256 of *Greenwich Magnetical and Meteorological Observations for 1841.*)

(Continued from page 41.)

The Astronomer Royal, G. B. Airy, Esq., made a journey to Turin for the purpose of observing the Eclipse; and in his account of the phenomena, to the Royal Astronomical Society, he remarks that he saw nothing whatever of beads or other irregularity in either of the extinctions of the Sun's limb. But the appearance of the Moon can never be forgotten—it was like a black patch fixed in the sky, surrounded by a ring of faint light, whose breadth he estimated at 1-8th of the Moon's diameter. He then says, "I gazed earnestly at this remark-

APPEARANCE OF THE SUN A SHORT TIME BEFORE TOTALITY.

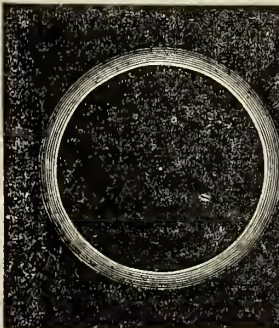


APPEARANCE OF THE SUN AND MOON ONE OR TWO SECONDS OF TIME BEFORE TOTALITY.



able ring, and I could not divest myself of the idea that it was produced by the Sun's light shining past the Moon's body through a portion of our own atmosphere. I wish it to be understood clearly that I do not offer this as an explanation of the ring, (indeed, considering the number of miles by which the Moon's limb overpassed the line drawn from the place of observation to the Sun's limb, I cannot now consider such an explanation feasible.) After a few other remarks on this ring, he proceeds: I took off the dark glasses, and carefully examined the Moon with the telescope. Her disc was distinctly visible as having independent light; and I think that if it had been stronger I might have seen the large

APPEARANCE OF THE MOON AT THE MIDDLE OF THE ECLIPSE.



APPEARANCE OF THE MOON AFTER THE MIDDLE OF THE ECLIPSE.



tracts of different brightness on her disc. I could not, however, see the smallest inequality of light of the nature of broad dark tracts, or dark spot, or bright spot.

"While thus looking at the Moon, I saw, to my great surprise, some small red flames at the apparent bottom of the disc (the top as seen with the naked eye). The number of flames, as I have them impressed on my memory, and as I find them drawn on a small pencil sketch made a few minutes after their appearance, was three; their form was nearly that of saw-teeth in the position proper for a circular saw turned round in the same direction as the hands of a watch turn. (See the fiftieth vol. of the *Memoirs of the Royal Astronomical Society*). The preceding are copies of the drawings made by the Astronomer Royal."



## A TABLE, SHOWING THE TIMES OF SUN-RISING AND SUN-SETTING AT LONDON, AND AT THE CHIEF CITIES AND TOWNS IN GREAT BRITAIN AND IRELAND.

NAME OF PLACES situated NORTH of London. The numbers opposite to any particular place are to be used for itself and for all Towns or Villages a few miles either N. or S. of it. Example: Required, the Time of Rising and Setting of the Sun at Edinburgh, on January 1st.—										The Sun Rises later, than at London, therefore, add the number of minutes to the time of Sun-rising found on that day in the Almanack. And he Sets earlier, therefore, subtract the number of minutes from the time of Setting that day, in the Almanack.										The Sun Rises earlier than at London, therefore, subtract the number of minutes in this table, under the month and day, in the required place, from the time of Sun-rising found on that day in the Almanack; and the result is the time of his Rising at the place required; and the Sun Sets later, therefore, add the number of minutes in this table to the time of Sun-setting on the day found in the Almanack.										The Sun Rises later and Set earlier, as in January, February, and March, therefore, add to time of Sun-rising, and subtract from time of Sun-setting.																																									
h. m. h. m. Time of Sun-rise on Jan. 1, in the Almanack, is 8 8 Opposite to Edinburgh on that day is, add . 0 45										And Sunset on that day is . 4 1 And for Sun-set subtract . 0 45																																																													
The Sum is the Time of Sun-rise at Edinburgh . 8 53										The Diff is time of Sun-setting 3 16																																																													
January.						February.						March.						April.						May.						June.						July.						August.						September.						October.						November.						December.					
1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.		1st.		15th.																					
Thurso, Wick		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																					
Dornock, Tain, Portinlick		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																					
Peterhead, Banff, Elgin, Cromarty, Inverness		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																					
Aberdeen, Inverberrie, Ura, Kell, Lagan		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																					
Forfar, Dundee, Perth		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																					
Berwick, Edinburgh, Linlithgow, Kinross, Stirling, Glasgow, Dunbar, Leith, Greenock		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																			
Alnwick, Jedburgh, Selkirk, Sanquhar, Irvine, Ayr		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																					
Newcastle, Shields, Carlisle, Annan, Dumfries, Kirkcudbright, Wigtown, Carrickfergus, Antrim, Londonderry		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																			
Scarborough, Whitby, Stockton, Penrith, Whitehaven, N. part of Isle of Man, Belfast, Clogher, Ballyshannon, Sligo		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																			
Flamborough, York, Lancaster, S. part of Isle of Man, Newry, Dundalk, Cavan, Castletown, Grimsby, Hull, Leeds, Wakefield, Liverpool, Beaumaris, Dublin, Athlone, Tuam, Galway, Lincoln, Nottingham, Derby, Stafford, Denbigh, Caernarvon, Wicklow, Athy, Birr, Clare		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																	
Yarmouth, Norwich, Ely, Peterborough, Leicester, Coventry, Lichfield, Montgomery, Aberystwith, Enniscorthy, Wexford, Kilkenny, Clonmel, Cashell, Limerick		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																	
Aldborough, Ipswich, Newmarket, Royston, Bedford, Buckingham, Cheltenham, Hereford, Brecon, Cardigan, Waterford, Dungarvon, Cork, Killarney, Valentia		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																			
Ramsgate, Margate, Sheerness, Gravesend, Richmond, Windsor, Wallingford, Eton, Maidenhead, Marlborough, Bath, Bristol, Newport, Cardiff, Pembroke, Kinsale, Bantry		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..		.. ..																	

The times of Sun-rising and Sun-setting at those places are those given daily in the ILLUSTRATED LONDON ALMANACK.

NAME OF PLACES situated SOUTH of London. The numbers opposite to any particular place are to be used for itself and all Villages near it. Example: At what time will the Sun Rise and Set at Brighton on Jan. 15.—

Time of Sun-rise on Jan. 15, is . . . . . 8 2	And of Sun-setting in the Almanack is 4 18
Opposite Brighton Jan 15, is, subtract . 0 6	And for Sun-setting add from the table 0 6
The time of Sun rise at Brighton is . . . . . 7 56	And of Sun-setting is . . . . . 4 24

The Sun Rises earlier, than at London, therefore, subtract from the time of Sun-rising. He Sets later, therefore, add to time of Sun-setting.

The Sun Rises later than at London, therefore, add to time of Sun-Rising. He sets earlier than at London, therefore, subtract from time of Sun-setting.

The Sun Rises earlier than at London, therefore, subtract from the time of Sun-rising; and he Sets later, therefore, add to time of Sun setting.

Dover, Folkestone, Hythe, Tunbridge Wells,  
Winchester, Southampton, Shaftesbury, Sal-  
isbury, Taunton, Bridgewater, Barnstaple  
Brighton, Portsmouth, Newport Isle of Wight,  
Lymington, Dorchester, Exeter, Launceston  
Dartmouth, Truro, Penzance .. ..

On March 21st, and on September 23d, the time of Sun-rising and Setting at all places in Great Britain and Ireland, are the same as those given in the Almanack.

## MAGNETIC DECLINATION OR VARIATION OF THE COMPASS.

If we suspend a magnetised bar to a filament of silk, so that it can move freely in a horizontal direction, it makes a series of oscillations, and finally settles in a determinate position, and whenever moved from this position it always returns to it, or very nearly so.

The place in which the needle remains thus at rest, is called the *magnetic meridian*. At Greenwich, this meridian makes with the astronomical meridian, an angle of about 23½ towards the west. This is named *magnetic declination*, or, popularly, "*variation of the compass*;" and it is termed west or east, according as the magnet-bar, that is turned towards the north, (and which is called the north end, or the marked end of the magnet), is east or west of the astronomical meridian.

Everywhere on the surface of the Earth the magnet takes a determinate position, but this position is different in different places. Starting from Greenwich the western variation is found to increase as we proceed towards the west, and attains its greatest value, at present, in the Atlantic Ocean. From this point the western variation diminishes; and, at the east of the United States of America, the magnet points exactly to the north, and the variation is nothing; more westward, it becomes east. Starting from Greenwich, and proceeding towards the east, the west variation is found to diminish, and to be nothing at the eastern part of the Russian empire; and then it becomes east, and more east as we proceed further towards the east.

At the end of the year 1840, a magnet was suspended at the Royal Observatory, at Greenwich, by a skein of silk, freed from all twist, and its position has been examined and recorded every two hours, night and day, from that time to the present, except on Sundays, Good Fridays, and Christmas-days. The observations and the results for the years 1841, 1842, and 1843, have been published. From the 12 observations thus taken daily, the extent of daily motion of the magnet has been deduced, and the average of the 12 taken to deduce the average daily position of the magnet; from the latter, the average monthly position has been deduced, and from these that of each of the years.

The following are the monthly values:—

Month	WESTERN VARIATIONS IN THE YEARS											
	1841				1842				1843			
	°	'	"		°	'	"		°	'	"	
January . . . . .	23	11	46		23	11	54		23	11	31	
February . . . . .	17	35			15	23			9	56		
March . . . . .	19	14			10	35			7	19		
April . . . . .	11	46			11	0			4	48		
May . . . . .	17	38			11	39			6	10		
June . . . . .	16	11			13	59			12	31		
July . . . . .	15	34			17	14			11	18		
August . . . . .	19	1			15	10			11	21		
September . . . . .	24	19			14	11			16	31		
October . . . . .	12	18			18	4			16	12		
November . . . . .	17	11			17	22			15	50		
December . . . . .	11	5			17	22			17	3		

From these numbers it will be seen that the changes of position are frequent and large.

The average value for the year 1841 was 23 16 8  
" " " 1842 " 23 14 29  
" " " 1843 " 23 11 43

It is found that upon the three years' observations, that at about 7 o'clock in the morning, the marked end of the magnet begins to move to the westward, and, therefore, the variation increases; this increase continues till about 1h. P.M., at which time the variation is at its maximum. The increase between 7h. A.M., and 1h. P.M., is about 7½ minutes of arc.

The marked end of the magnet then moves towards the east, and the variation



diminishes, from 1h. P.M. till about 11h. P.M., the amount of the decrease being about  $8\frac{1}{2}$  minutes of arc.

The variation then increases from about 11h. P.M., to about 5h. A.M.; the increase being about three-fourths of a minute of arc.

The variation then diminishes between 5h. A.M., and about 7h. A.M., by about half of a minute.

During these increases and decreases the variation twice reaches its mean value, viz., a little after 9h. A.M., and about 5h. P.M.

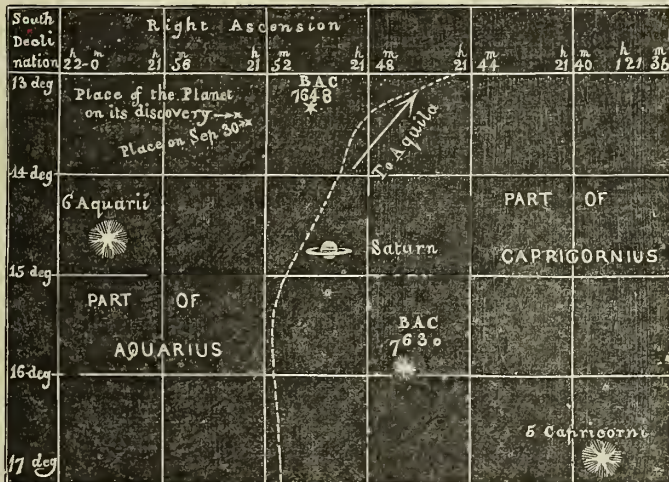
The above remarks are deduced from the yearly average of all the observations taken at the same hours; but when the daily motion is examined in different parts of the year it is found to be different. In summer the daily range of the magnet is nearly 11 minutes, whilst in winter it is only  $7\frac{1}{2}$  minutes. In summer there appears to be a double approach to, and a double receding from, the astronomical meridian, whilst in winter there appears to be a single oscillation only.

On some days the change of position is as small as 3 minutes; whilst on other days it may amount to one or two degrees, or even more; and frequently it will amount to half of a degree. At times the magnet will move according to its average motion for many days, or even several months together; at other times it will suddenly depart from its usual motion, and continue thus moving irregularly for an hour, or for several hours; and in a few cases it has been for several days together, under some cause of disturbance. In 1841, on September 25th, the magnet was greatly disturbed, and it was recorded to be in positions such that the variation was  $22^{\circ} 14'$ , and  $24^{\circ} 30'$ , and at every position between these; but it is believed by the observer, Mr. Glaisher, from the fact of it moving further than the above positions, on both sides, that the variation of the compass on this day was less than  $22^{\circ}$  and greater than  $25^{\circ}$ . [See *Greenwich Magnetical Observations* for 1841, (page 41 to 49), and at page 4 of Abstracts; and also the volumes for 1842 and 1843, for particulars of other days of disturbance.] It is found, too, that on days of disturbance that magnets distributed all over the world move irregularly. (For a description of the Magnetical and Meteorological Observations at Greenwich See the ILLUSTRATED LONDON NEWS for March 16, 1844.)

### LE VERRIER'S NEW PLANET.

A NEW Planet beyond Uranus was discovered at the latter part of 1846, under the most interesting circumstances, which are as follow:—

In the year 1781, on March 13, Uranus was discovered by Sir William Herschel,



SCALE HALF AN INCH TO A DEGREE.

who was examining some small stars near the feet of Gemini, and he observed one of them to have a sensible amount of diameter and less brightness than the others, and it was soon found to be a Planet; it, however, had been seen before, first, by Flamsteed, on December, 23rd, 1690; and, between this time and 1781, it had been observed sixteen times by Flamsteed, Bradley, Mayer, and Lemonnier; these astronomers had classed it as a star of the 6th magnitude. Between 1781 and 1820 it was of course very frequently observed, and it was hoped that at the latter time sufficient data existed to construct accurate tables of its motions; this task was undertaken by M. Bouvard, member of *L'Académie des Sciences*, but he met with unforeseen difficulties. It was found utterly impossible to construct tables which would represent the seventeen ancient observations, and, at the same time, the more numerous modern ones; and it was finally concluded that the ancient observations were erroneous, or that some strange and unknown action disturbed, or had disturbed, the Planet; consequently, M. Bouvard discarded entirely the old observations, and used only those taken between 1781 and 1820, in constructing the tables of Uranus. For some years past, it has been found that the tables thus constructed do not agree any better with modern observations, than they do with the ancient observations; consequently, it was evident that the Planet was under the influence of some unknown cause.

Several hypotheses have been suggested as to the nature of this cause; some persons talked of a resisting medium; others, of a great satellite which might accompany Uranus; some even went so far as to suppose that the vast distance Uranus is from the sun caused the law of gravitation to lose some of its force; others thought that the rapid flight of a Comet had disturbed its regular movements; others thought of the existence of a Planet beyond Uranus, whose disturbing force caused the anomalous motions of the Planet; but no one did otherwise than follow the bent of his inclination, and did not support his assertion by any positive considerations.

Thus was the theory of Uranus surrounded with difficulties, when M. Le Verrier, an eminent French mathematician, undertook to investigate the irregularities in its motions. His first paper appeared on the 10th of November, 1845, and his second on June 1, 1846, published in the "*Comptes Rendus*." In this second paper, after a most elaborate and careful investigation, he proves the utter incompleteness of any of the preceding hypotheses to account for the Planet's motions, except only that of the last one, viz., that of a new Planet. He then successively proves that this Planet cannot be situated either between the Sun and Saturn, or between Saturn and Uranus; but that it must be beyond Uranus. And in this

paper he asks the following questions:—"Is it possible that the inequalities of Uranus can be owing to the action of a Planet, situated in the Ecliptic, at a distance of twice the mean distance of Uranus from the Sun? And, if so, where is it actually situated? What is its mass? What are the elements of the orbit it describes?"

This was the problem he set himself to work upon, by means of solving the inverse problem of the perturbations; for, instead of having to measure the action of a determined Planet, he had to deduce the elements of the orbit of the disturbing Planet, and its place in the heavens, from the recognised inequalities of Uranus. And this problem M. Le Verrier has successfully solved: in his second paper he deduces the place in the heavens that the body must be as  $325^{\circ}$  of heliocentric longitude. On the 31st of August last he published his third paper. In this he has calculated that the period of the Planet is 217 years, and that it moves in an orbit at the distance of more than 3000 millions of miles from the sun; that its mean longitude, on January 1, 1847, will be  $318^{\circ} 47'$ ; its true longitude,  $326^{\circ} 32'$ ; and that the longitude of its perihelion will be  $284^{\circ} 45'$ ; that it will appear to have a diameter of  $\frac{3}{4}$  seconds of arc, as seen from the Earth; and that it is now about  $5^{\circ}$  E. of Delta Capricorni.

These remarkable calculations have pointed out a position which has very nearly proved to be the true one.

On Sept. 23rd, Dr. Galle, at Berlin, discovered a star of the eighth magnitude, which has proved to be the Planet; its place at the time is shown in the above Chart; it will be seen to be at the distance of  $2\frac{1}{2}$  inches on the Chart from Delta Capricorni (in the Chart Delta has been erroneously engraved as  $\delta$ ); and thus it was five degrees from Delta Capricorni: it was found to have a disc of three seconds as predicted; and its longitude at the time differs less than a degree from the longitude computed from the above elements. Its daily motion, too, is found to agree very closely with the predicted; and, judging from this last circumstance, the Planet's distance, as stated above, must be nearly the truth.

Thus the result of these calculations was the discovery of a new Planet in the place assigned to it by theory, whose mass, distance, position in the heavens, orbit it describes round the sun, were all approximately determined before the Planet had ever been seen, and all agrees with observation so far as can at present be determined. It is found to have a disc, and its diameter cannot be much less than 40,000 miles, and may be more; its motions are very slow; it is at present in the Constellation of Aquarius as indicated by theory, and it will be in the Constellation of Capricornus all the year 1847. It may be readily seen in a telescope of moderate power. Whatever view we take of this noble discovery it is most gratifying—whether at the addition of another Planet to our list; whether at the proving the correctness of the theory of universal Gravitation; or in what view soever, it must be considered as a splendid discovery, and the merit is chiefly due to Theoretical Astronomy.

This discovery is perhaps the greatest triumph of Astronomical Science that has ever been recorded.

During the year 1847, the best times for observing it will be as follows:—In August, about one o'clock in the morning; in September, from nine p.m. till midnight; in October, between seven and ten; in November, between five and eight; and in December, between sunset and six, in the evenings. Saturn will be considerably to the east of the Planet at those times.

### HOLIDAYS KEPT AT PUBLIC OFFICES.

At the Bank, the only Holidays in the Dividend Offices are Good Friday and Christmas Day; in the Transfer Offices, besides the above, May 1 and Nov. 1. East India House and Exchequer, Good Friday and Christmas Day. Custom House and the several Public Dock Companies, Christmas Day and Good Friday, and her Majesty's Birthday, May 24. Excise and Stamp Offices, the Holidays are the same as in the Customs, with the addition of Whit Monday, Whit Tuesday, and May 29.

### QUARTER SESSIONS IN THE SEVERAL COUNTIES OF ENGLAND AND WALES.

By the Act 1 Will. IV., c. 70, it is enacted, that "in the year 1831, and afterwards, the Justices of the Peace in every county, riding or division, for which Quarter Sessions of the Peace by law ought to be held, should hold their general Quarter Sessions of the Peace in the first whole week after the 11th of October, in the first week after the 25th December, in the first week after the 31st of March, and in the first week after the 24th of June."

It having been found that some inconvenience occasionally arose from the time fixed for holding of the Spring Quarter Sessions interfering with that appointed for holding the Spring Assizes, an Act was passed 4 and 5 Wm. IV., c. xlvii. allowing a discretionary power of the Justices of Peace as to the time of holding the Spring Quarter Sessions, and they are empowered at the preceding Epiphany Sessions to appoint two of their body to alter the day for the Quarter Sessions, if they shall see occasion, so as not to be earlier than the 7th of March, nor such than the 22nd of April; notice of the day so appointed is to be advertised in later papers as the Justices shall direct.

### BRITISH PREMIERS, FROM THE YEAR 1760—1846.

The Right Honourable William Pitt	.. .. .	to 1760
Earl of Bute	.. .. .	1761 to 1762
George Granville	.. .. .	1762 to 1765
Marquis of Rockingham	.. .. .	1765 to 1766
Duke of Grafton	.. .. .	1766 to 1770
Lord North	.. .. .	1770 to 1782
Earl of Shelburne	.. .. .	1782 to 1784
Right Honourable William Pitt	.. .. .	1784 to 1801
Right Honourable Henry Addington	.. .. .	1801 to 1804
Right Honourable William Pitt	.. .. .	1804 to 1806
Lord Grenville	.. .. .	1806 to 1807
Duke of Portland	.. .. .	1808 to 1809
Right Honourable Spencer Percival	.. .. .	1810 to 1812
Earl of Liverpool	.. .. .	1812 to 1827
Right Honourable George Canning	.. .. .	to 1827
Viscount Goderich	.. .. .	1827 to 1828
Duke of Wellington	.. .. .	1828 to 1830
Earl Grey	.. .. .	1830 to 1834
Duke of Wellington (pro. tem.)	.. .. .	to 1835
Viscount Melbourne	.. .. .	to 1835
Sir Robert Peel	.. .. .	1835 to 1836
Viscount Melbourne	.. .. .	1836 to 1841
Sir Robert Peel	.. .. .	1841 to 1846
Lord John Russell	.. .. .	1846 —



## STAMPS AND TAXES.

## RECEIPT STAMPS.

For	£ s. d.	For	£ s. d.
£5 and under £10	.. 0 3	£200 and under £300	.. 5 0
10 .. 20	.. 0 6	300 .. 500	.. 5 0
20 .. 50	.. 1 0	500 .. 1000	.. 7 6
50 .. 100	.. 1 6	1000 and upwards	.. 10 0
100 .. 200	.. 2 6	In full of all demands	.. 10 0

N.B.—Persons receiving the money are compelled to pay the duty.

## BILLS AND NOTES.

£2 and not exceeding	£5 5s. ..	Not ex. 2 months.	Exceed. 2 months.
Above 5 ..	20 ..	1 0	1 6
20 ..	30 ..	1 6	2 0
30 ..	50 ..	2 0	2 6
50 ..	100 ..	2 6	3 6
100 ..	200 ..	3 6	4 6
200 ..	300 ..	4 6	5 0
300 ..	500 ..	5 0	6 0
500 ..	1000 ..	6 0	8 6
1000 ..	2000 ..	8 6	12 6
2000 ..	3000 ..	12 6	15 0
Above ..	3000 ..	15 0	25 0
		25 0	30 0

Promissory Note for the payment of any sum of money by instalments, the same duty as on a Promissory Note payable in less than two months.

## BONDS AND MORTGAGES.

Any sum not exceeding	£50 £1 0	Above £2,000 and not exceeding	£7 0
Above £50 and not exceeding 100	1 10	3,000 ..	5,000 9 0
100 ..	200 2 0	4,000 ..	10,000 12 0
200 ..	300 3 0	5,000 ..	15,000 15 0
300 ..	400 4 0	10,000 ..	20,000 20 0
500 ..	1000 5 0	15,000 ..	20,000 20 0
1000 ..	2000 6 0		

Bonds of every 1080 words above the first, 25s. Mortgages, 20s.

## APPRENTICES' INDENTURES.

Under	£30 £1	£100 and under £200	£6	£400 and under £500	£25
£30 and under 50	2 200 ..	200 12	500 ..	600 30	
50 ..	100 3	300 ..	400 20		

Where no such consideration, If the instrument shall not contain more than 1080 words, £1. And if shall contain more than that quantity, £1 15s.

## PROBATES OF WILLS AND LETTERS OF ADMINISTRATION.

Above the Value of	And under.	With a Will.	Without a Will.
£	£	£ s. d.	£ s. d.
20 ..	50	0 0	10s.
20 ..	100	0 10	—
50 ..	100	1 0	£1
100 ..	200	2 0	3
200 ..	300	5 0	8
300 ..	450	8 0	11
450 ..	600	11 0	15
600 ..	800	15 0	22
800 ..	1000	22 0	30
1000 ..	1500	30 0	45
1500 ..	2000	40 0	60
2000 ..	3000	50 0	75
3000 ..	4000	60 0	90
4000 ..	5000	80 0	120
5000 ..	6000	100 0	150

The scale continues to increase up to £1,000,000.

## APPRAISEMENT STAMPS.

Where such appraisement or valuation shall not exceed	£ s. d.	Above £100 not exceeding	£200 £10
£50 2 6		200 ..	300 0 15
Above £50 and not exceeding 100	5 0		500 1 0

## DUTIES ON LEGACIES.

Of the value of £20, or upwards, out of Personal Estate, or charged upon Real Estate, &c.; and upon every share of Residue—To a child, or parent, or any lineal descendant, or ancestor of the deceased, £1 per cent. To a Brother or Sister or their descendants, £3 per cent. To an Uncle, or Aunt, or their descendants, £5 per cent. To a Great Uncle or Great Aunt, or their descendants, £6 per cent. To any other Relation or Stranger in Blood, £10 per cent.—Legacy to Husband or Wife exempt.

If the deceased died prior to the 5th of April, 1805, the duty only attaches on Personal Estates, and by a lower scale.

## LICENCES.

For Marriage, if special ..	£5 0
Do to, if not special ..	0 10
For Bankers ..	30 0
For Pawnbrokers, within the limits of the twopenny post	15 0
Elsewhere ..	7 10
For Appraisers ..	2 0
For Hawkers and Pedlars, on foot ..	4 0
Do to, with one horse, ass, or mule ..	8 0
Selling Beer, to be drunk on the Premises ..	3 3
Do to, not to be drunk on the Premises ..	1 1

## DOGS.

For every greyhound ..	£1 0 0
For every hound, pointer, setting dog, spaniel, terrier, or lurcher, and for every dog, where two or more are kept, of whatever denomination they may be (except greyhounds) ..	0 14 0
For every other dog, where one only is kept ..	0 8 0
Compounding a pack of hounds ..	36 0 0
Farmers with farms under £100 value, and shepherds, are exempt from dogs kept for the care of sheep.	

## WINDOW TAX.

Windows	Duty per Annum.	Windows	Duty per Annum.	Windows	Duty per Annum.	Windows	Duty per Annum.
8	£ s. d.	16	£ s. d.	24	£ s. d.	32	£ s. d.
9	0 16 6	17	3 18 6	25	7 5 9	33	10 13 3
10	1 1 0	18	4 7 0	26	7 14 3	34	11 1 6
11	1 8 0	19	4 15 3	27	8 2 9	35	11 10 0
12	1 16 3	20	5 3 9	28	8 11 0	36	12 6 9
13	2 4 9	21	5 12 3	29	8 19 6	37	12 15 3
14	2 13 3	22	6 0 6	30	9 8 0	38	13 3 6
15	3 1 9	23	6 9 0	31	9 16 3	39	13 12 0
	3 10 0		6 17 6	32	10 4 9		

Farm-houses belonging to Farms under £200 a year are exempt.

\* By cap. 17, 3 and 4 Vict. an additional £10 per cent. is imposed upon all the Assessed Taxes, Customs, and Excise.

## DUTIES ON CARRIAGES.

## WITH FOUR WHEELS.

No.	Per carriage for private use.	No.	Stage coaches & post chaises.
	£ s. d.		£ s. d.
1	6 0 0	1	5 5 0
2	6 10 0	2	10 10 0
3	7 0 0	3	15 15 0
4	7 10 0	4	21 0 0
5	7 17 6	5	26 5 0
6	8 4 0	6	31 10 0
7	8 10 0	7	36 15 0
8	8 16 0	8	42 0 0
9	9 1 6	9	47 5 0

## WITH TWO WHEELS.

Carriages with two wheels, each ..	£ s. d.
Do to, drawn by two or more horses, or mules ..	3 5 0
For every additional body used on the same carriage ..	4 10 0
For every additional body ..	1 11 6
Carriages let by coachmakers, without horses ..	3 3 0
	6 0 0

For every carriage with four wheels, being of less diameter than thirty inches each, where drawn by ponies or mules, above twelve and not exceeding thirteen hands, per annum, £3 5s.; if with less than four wheels, and the ponies not exceeding twelve hands, and not let for hire, exempt. For every carriage with four wheels, drawn by one horse and no more, per annum, £4 10s. Carriages with less than four wheels, drawn by one horse, and constructed and marked as described by Act 6 & 7 Wm. IV., c. 65, and 1 Vict. c. 61, not exceeding £21 in value; also common stage carts, constructed for the carriage of goods, and occasionally used for riding, are exempt.

## HORSE TAX.

## FOR RIDING OR DRAWING CARRIAGES.

No.	Each Horse.	No.	Each Horse.
	£ s. d.		£ s. d.
1	1 8 9	11	3 3 6
2	2 7 3	12	3 3 6
3	2 12 3	13	3 3 9
4	2 15 0	14	3 3 9
5	2 15 9	15	3 3 9
6	2 18 0	16	3 3 9
7	2 19 9	17	3 4 0
8	2 19 9	18	3 4 6
9	3 0 9	19	3 5 0
10	3 3 6	20	3 6 0

Horses let to hire without post duty, and race-horses, each .. £1 8 9  
Horses rode by butchers in their trade, each .. .. 1 8 9  
Where two only are kept, the second at .. .. 0 10 6  
Horses for riding, and not exceeding thirteen hands, each .. 1 1 0  
One horse used by a bailiff on a farm .. .. 1 5 0  
Other horses, thirteen hands high, and mules, each .. .. 0 10 6  
A horse used for riding by any one occupying a farm of less annual value than £500 is exempt, provided not more than one is kept; as are also horses employed by market gardeners, in their business.

## PENALTIES UNDER THE STAMP ACT.

For acting as an Appraiser without a license, £50.  
For every Appraisement written upon paper not duly stamped, £50.  
Apprentices' Indentures to state the real amount of premium in proportion to which the stamp duty is charged, on penalty of forfeiting double the amount of premium.  
For Attorneys and Solicitors acting without having been admitted, £100.—For acting without certificate, £50.  
For drawing a Bill or Promissory Note upon unstamped paper, or upon paper insufficiently or wrongly stamped, £50.—For post-dated Bills of Exchange, £100.  
For drawing a Check more than ten miles from the place where made payable, £100.—For receiving the same in payment, £20.—For Bankers paying the same, £100.  
For setting out wrong amount in Conveyance. On the Attorney, £500. On the purchaser, £50.  
For selling Patent Medicines, &c. without a license, £20. Without a stamp, £10.  
For printing a Newspaper without first making declaration as to the ownership, &c., £50 for every day such paper shall be printed or published.—For printing without stamps, on each paper issued, £20.  
For neglecting or delaying to enter Pamphlets at the Stamp Office, or selling without paying duty when demanded, £20.  
For Pawnbrokers taking pledges without a licence, £50. For selling Plate without a licence, £20. For selling plate without being duly stamped, £50.  
For taking possession of the effects of any one deceased, without taking out Letters of Administration, £100.  
For giving an unstamped receipt for money of any amount above £5, £10.  
For giving a receipt on an insufficient stamp, £10.  
For refusing to give a receipt when demanded for money paid exceeding £5, £10.



## THE ROYAL FAMILY.

Victoria, Queen, born	May 24 1819	Princess Helena ..	May 25 1846
Prince Albert ..	Aug. 26 1819	Duchess of Kent ..	Aug. 17 1786
Prince of Wales ..	Nov. 9 1841	Adelaide, Queen Dowager	Aug 13 1792
Princess Royal ..	Nov. 21 1840	King of Hanover ..	June 5 1771
Princess Alice ..	April 25 1843	Duke of Cambridge	Feb. 24 1774
Alfred Ernest Albert	Aug. 6 1844	Duchess of Gloucester	April 25 1776

## HER MAJESTY'S MINISTERS.

## OF THE CABINET.

First Lord of the Treasury (Premier) ..	Lord John Russell
Lord Chancellor ..	Lord Cottenham
Commander-in-Chief ..	The Duke of Wellington
Lord President of the Council	The Marquis of Lansdowne
Lord Privy Seal ..	The Earl of Minto
Secretaries of State { Home ..	Sir George Grey
Foreign ..	Lord Palmerston
Colonial ..	Earl Grey
Chancellor of the Exchequer ..	Mr. Charles Wood
Board of Control ..	Sir J. C. Hobhouse
Board of Trade ..	The Earl of Clarendon
Admiralty ..	The Earl of Auckland
Paymaster-General ..	Mr. Macaulay
Chancellor of the Duchy of Lancaster ..	Lord Campbell
Woods and Forests ..	Lord Morpeth
Secretary at War ..	Mr. Fox Maule
Postmaster-General ..	The Marquis of Clanricarde

## NOT OF THE

Master-General of the Ordnance ..	The Marquis of Anglesey
Vice President of the Board of Trade ..	Mr. Milner Gibson
Master of the Mint ..	Mr. Richard Lalor Sheil
Secretary of the Admiralty ..	H. G. Ward, Esq.
Secretaries of the Treasury ..	T. Parker, Esq., H. Tufnell, Esq.
Secretaries of the Board of Control	The Rt. Hon. G. S. Byng, T. Wyse, Esq.
Under Secretaries { Home ..	Sir William Somerville
Foreign ..	The Right Hon. E. J. Stanley
Colonial ..	B. Hawes, Esq., Mr. Charles Buller*
Lords of the Treasury ..	Lord Ebrington, H. Rich, Esq. The O'Connor Don, W. Gibson Craig Esq.
Lords of the Admiralty ..	Admiral Dundas, Admiral Sir W. Parker, Capt. the Hon. F. Berkeley, Capt. Lord J. Hay, The Hon. W. Cowper, Admiral Sir C. Adam
Ordnance { Secretary ..	Lord Charles Paget
Clerk ..	The Hon. G. Anson
Surveyor-General ..	Colonel C. R. Fox
Attorney General ..	Sir John Jervis
Solicitor-General ..	Mr. Dundas
Judge-Advocate ..	Mr. Charles Buller

## IRELAND.

Lord Lieutenant ..	The Earl of Besborough
Lord Chancellor ..	The Right Hon. M. Brady
Chief Secretary ..	Mr. Labouchere
Attorney General ..	Mr. Moore
Solicitor-General ..	Mr. Monaghan

## SCOTLAND.

Lord Advocate ..	Mr. A. Rutherford
Solicitor-General ..	Mr. T. Maitland

\* Mr Buller also holds the office of Judge Advocate.

## THE QUEEN'S HOUSEHOLD.

Lord Steward ..	Earl Fortescue
Lord Chamberlain ..	The Earl Spencer
Vice-Chamberlain ..	Lord E. Howard
Master of the Horse ..	The Duke of Norfolk
Clerk Marshal and Chief Equerry ..	Lord Alfred Paget
Treasurer of the Household ..	Earl Jermyn
Comptroller of the Household ..	Lord Marcus Hill
Master of Buck-hounds ..	Earl Granville
Captain of the Yeomen of the Guard ..	Viscount Falkland
Captain of Gentlemen at Arms ..	Lord Foley
Lords in Waiting ..	Earl of Listowel, Lord Camoys, Lord Waterpark, Earl Ducie, Earl of Morley, Lord Byron, Earl of Morton, Marquis of Ormonde.
Mistress of the Robes ..	The Duchess of Sutherland
Ladies of the Bedchamber ..	Countess of Mount Edgumbe, Marchioness of Douro, Viscountess Canining, Lady Portman, Countess of Charlemont, Countess of Gainsboro', Viscountess Jocelyn, Countess of Desart.

## EAST INDIA COMPANY.

Six Directors are elected annually in April, when six go out by rotation. Each Director serves four years. The figure prefixed denotes the number of years each has to serve.

## DIRECTORS.

(2) Chairman, Sir James Weir Hogg, Bart., M.P., 40, Upper Grosvenor-street.	(1) John Shepherd, Esq.
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(3) William Wigram, Esq.	(2) Sir Henry Willock, K.L.S.
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(3) John Petty Muspratt, Esq.	(2) Major-General Archibald Robertson.
(1) Henry Alexander, Esq.	(1) Major James Olinthant.
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(1) Sir W. Young, Bart.	(1) Hon. William Henry Leslie Melville.
(3) George Lyall, Esq., M.P.	Major-Gen. Archibald Galloway, C.B.
(4) Henry Shank, Esq.	Sir Richard Jenkins, G.C.B.
(4) John Cotton, Esq.	John Masterman, Esq., M.P.

## THE FOLLOWING GENTLEMEN ARE OUT BY ROTATION.

William Astell, Esq., M.P.	Major-Gen. Archibald Galloway, C.B.
William Butterworth Bayley, Esq.	Sir Richard Jenkins, G.C.B.
Russell Ellice, Esq.	John Masterman, Esq., M.P.

## CITY OFFICERS.

## LORD MAYOR.

Elected September 29th—Sworn in November 8th.  
The Right Honourable Sir George Carroll, Kt., Candlewick, 1840.

## SHERIFFS.

Elected 24th June—Sworn in 28th September.  
Alderman Challis. | W. R. Kennard, Esq.

## UNDER SHERIFFS.

Mr. F. T. Bircham. | Mr. David Williams Wire.  
ALDERMEN.

## THE FOLLOWING HAVE NOT PASSED THE CHAIR.

Wood, Thomas, Esq., Cordwainer; 3, Corbet-court, Gracechurch-street ..	1835
Hooper, John K., Esq., Queenhithe; 20, Queenhithe ..	1840
Duke, Sir James, Kt., M.P., Farringdon Without; Botolph-lane ..	1840
Farncomb, Thomas, Esq., Bassishaw; Griffin's Wharf, Southwark ..	1840
Mugrove, John, Esq., Broad-street; 18, Old Broad-street ..	1842
Hunter, William, Esq., Coleman-street; 10, Finsbury Circus ..	1843
Challis, Thomas, Esq., Cripplegate; 32, Wilson-street, Finsbury ..	1843
Hughes, Hughes William, Esq., Bread-street; 17, Great Distaff-lane ..	1843
Sidney, Thomas, Esq., Billingsgate; 8, Ludgate-hill ..	1844
Moon, F. G. Esq., Portsoken; 20, Threadneedle-street ..	1844

## THE FOLLOWING HAVE PASSED THE CHAIR.

Hunter, Sir. C. S. Bart., Bridge Without; 23, Euston-square ..	1804
Lucas, M. P., Esq., Tower; 21, Water-lane ..	1821
Thompson, W. Esq., M.P., Cheap; Upper Thames-street ..	1821
Key, Sir John, Bart., Langbourn; 9, King's Arms-yard ..	1823
Laurie, Sir Peter, Knt., Aldersgate; 7, Park-square, Regent's-park ..	1826
Farebrother, C. Esq., Lime-street; 6, Lancaster-place, Strand ..	1826
Copeland, W. Esq., M.P., Bishopsgate; 37, Lincoln's Inn-fields ..	1829
Kelly, T. Esq., Farringdon Within; 17, Paternoster-row ..	1830
Wilson, Samuel, Esq., Castle Baynard; 24, St. Paul's Church-yard ..	1831
Marshall, Sir C. Knt., Bridge Within; 43, Russell-square ..	1832
Pirie, Sir John, Bart., Cornhill, 71, Cornhill ..	1834
Humphrey, J. Esq., M.P., Aldgate; Hay's Wharf, Southwark ..	1835
Magray, Sir William, Bart., Vintry; College-hill ..	1838
Gibbs, Michael, Esq., Walbrook; 33, Walbrook ..	1838
Johnson, John, Esq., Dowgate ..	1839

## LAW COURTS.

CHANCERY.—Lord High Chancellor, Lord Cottenham. Master of the Rolls, Lord Langdale. Vice Chancellor, Sir L. Shadwell. First Vice Chancellor, Sir James L. K. Bruce, Second ditto, Sir James Wigram.  
QUEEN'S BENCH.—Lord Chief Justice, Lord Denman. Judges, Sir John Patteson, Sir John Williams, Sir John T. Coleridge, Sir Wm. Wightman, Sir Wm. Erle.  
COMMON PLEAS.—Lord Chief Justice, Sir Thomas Wilde. Judges, Sir Thomas Coltman, Sir Wm. Hen. Maule, Sir W. Creswell, Sir Vaughan Williams.  
EXCHEQUER.—Lord Chief Baron, Sir Frederick Pollock. Barons, Sir James Parke, Sir Edw. H. Alderson, Sir Robert M. Rolfe, Sir Thomas J. Platt.  
RAILWAY BOARD.—Chief Commissioner, Edward Strutt, Esq., M.P., 42, South Street.

## COURT OF BANKRUPTCY.

Chief Judge, Vice Chancellor Bruce  
Chief Registrars, Mr. Sergeant Edward Lawes and Mr. Oyrler  
Deputy Registrars, Messrs. Campbell, Winslow, Pollock, Whitehead, Miller and Abraham  
Registrar of Meetings, Jeremiah Hodgson, Esq., Resident  
Enrolment Officer, Mr. Church  
Commissioners, Mr. Sergeant Goulburn, J. Evans, J. S. M. Fonblanque, R. G. C. Fane, E. Holroyd, and J. H. Shepherd, Esqrs.  
Birmingham, John Baluey, Q.C., Esq., and Robert Daniell, Esq.  
Liverpool, Walter Skirrow, Esq., and — Perry, Esq.  
Manchester, Ebenezer Ludlow, Esq., Sergeant, and William Thomas Jemmett, Esq.  
Leeds, Martin John West, Esq., and Montague Bere, Esq.  
Bristol, H. J. Stephen, Esq., Sergeant, and Richard Stevenson, Esq.  
Exeter, Edward Goulburn, Esq., Sergeant  
Newcastle, N. Ellison, Esq.

## INSOLVENT DEBTORS' COURT.

Chief Commissioner, H. R. Reynolds, Esq.  
Commissioners, J. G. Harris, William J. Law, and C. Phillips, Esq.  
Provisional Assignee, S. Sturgis, Esq.  
Chief Clerk, J. Massey, Esq.  
Tax Master, H. C. Richards, Esq.  
Clerk of the Rules, C. V. White, Esq.  
County Registrar—H. Simpson, Esq.

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## WHITEHALL.

## LORDS COMMISSIONERS.

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Secretaries, J. Parker, Esq., H. Tufnell, Esq.  
Assistant Secretary, C. E. Trevelyan, Esq.  
Principal Clerk, S. R. Leake, Esq.  
Solicitor, G. Maule, Esq.  
Paymaster, W. Sargent, Esq.  
Cashiers, Henry Pemberton, Esq., E. Kitchen, Esq.  
Accountant, J. Miller, Esq.

## EXCHEQUER.

## WHITEHALL YARD.

Chancellor, the Right Hon. Charles Wood.  
Comptroller, Lord Monteagle.  
Assistant, A. Eden, Esq.  
Chief Clerk, F. T. Ottey, Esq.  
Accountant, G. S. Frederick, Esq.

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Under Secretaries, S. M. Phillips, Esq., Sir Wm. Somerville, Bart.  
Chief Clerk, T. H. Plasket, Esq.  
Private Secretary, H. Brand, Esq.

## FOREIGN OFFICE.

## DOWNING-STREET.

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Under Secretaries, the Right Hon. E. J. Stanley, H. U. Addington, Esq.  
Chief Clerk, G. L. Conyngham, Esq.  
Private Secretary, the Hon. Spencer Ponsonby.

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## DOWNING-STREET.

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Under Secretaries, B. Hawes, Esq., Jas. Stephen, Esq.  
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18, GREAT QUEEN-STREET, WESTMINSTER.  
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Admiral Dundas, Captain the Hon. F.  
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Accountant, J. T. Briggs, Esq.  
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Chief Clerk, W. Leyburn, Esq.  
Inspector-General, Sir W. Burnett.  
Chief Clerk, B. Fosset, Esq.  
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reth, R.E.

Chief Clerk, Wm. Scamp, Esq.  
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Private Secretary, — Carmichael Esq.,  
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## WHITEHALL.

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Accountant, W. G. Anderson, Esq.  
Paymaster, T. Powis, Esq.

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Confidential Clerk, J. O'Neil, Esq.

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Richmond Park, Duke of Cambridge.  
Greenwich Park, the Earl of Aberdeen.  
Hampton Court, Lady Bloomfield.  
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Whitlbury Forest, Duke of Grafton  
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Chief Clerk, J. G. Donne, Esq.

(By Patent) R. Eden, Esq.  
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Rev. W. H. E. Bentinck, J. Gage, Esq.  
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vor, Esq.

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Alfred Power, Esq., E. Senior, Esq., W.  
J. Hancock, Esq., C. G. Orway, Esq.,  
J. Burke, Esq., John Ball, Esq.

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TION COMMISSIONERS.  
9, PARK-STREET, WESTMINSTER.

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Esq. Fredk. Rogers, Esq.

Secretary, S. Walcott, Esq.  
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2, PAUL'S BAKEHOUSE-COURT, DOCTORS'-  
COMMONS.

Judge, Right Hon. S. Lushington,  
D.C.L.  
Registrar, H. B. Swabey, Esq.

Queen's Advocate, Sir J. Dodson, LL.D.  
Admiralty Advocate, J. Phillimore.  
D.C.L.

Judge Advocate, H. J. Shepherd, Esq.  
Queen's Proctor, Francis Hart Dyke,  
Esq.

Admiralty Proctor, W. Townshend, Esq.  
Marshal, John Deacon, Esq.  
Solicitor Chas. Jones, Esq.

METROPOLIS ROADS,  
22, WHITEHALL-PLACE.  
Secretary, J. L. Panter, Esq.

Surveyor-General, Sir Jas. McAdam.  
Accountant, R. Robertson, Esq.  
Assistant, V. C. Wright, Esq.  
Inspector, H. Browne, Esq.  
Solicitor, J. W. Lyon, Esq.

OFFICE OF METROPOLITAN  
BUILDINGS,  
6 ADELPHI TERRACE.

Registrar, A. Symonds, Esq.  
Official Referees, Wm. Hoskins, Esq.,  
Ambrose Poynter, Esq., John Shaw,  
Esq.

GENERAL REGISTER OFFICE,  
7, ANN 8, SOMERSET PLACE, SOMERSET  
HOUSE.

Reg.-General, G. Graham, Esq.  
Chief Clerk, Thomas Maun, Esq.  
First Clerk of Records, E. Edwards, Esq.

EXCISE OFFICE.  
OLD BROAD STREET,  
Chairman, J. Wood, Esq.

Deputy, Hart Davis, Esq.  
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Esq., Hon. W. H. Percy, C.J. Herries,  
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Secretary, J. C. Freeling, Esq.  
Assistant, G. Ballard, Esq.

Receiver-General, W. T. Thornton, Esq.  
Comptroller and Auditor, Vaughan  
Davies, Esq.

Solicitor, C. M. Carr, Esq.  
Assistant Solicitor, J. Bateman, Esq.,  
LL.D.

## GENERAL POSTAL REGULATIONS.

## HEADS OF DEPARTMENTS.

Postmaster-General, Lord Clanricarde; Secretary, Lieut.-Col. W. L. Maberly;  
Assistant-Secretary, J. Campbell, Esq.; Chief Clerk to the Secretary, C. Johnson,  
Esq.; Solicitor, Mark B. Peacock, Esq.; Surveyor and Superintendent of Mail  
Conveyance and Guards, G. Stow, Esq.; Accountant General, C. T. Court,  
Esq.; Receiver-General, T. Young, Esq. Inspector of Ship Letters, G. Huddle-  
stone, Esq.; Inspector of the Dead Letter Office, K. Newton, Esq.; President of the  
Money Order Office, W. Barth, Esq.; Superintendent-President of the Inland  
and Foreign Department, W. Bokenham, Esq.; Inspectors of the Carriers  
(general post), F. Kelly, Esq.; Superintendent-President of the London District  
Post, R. Smith, Esq.

## INLAND REGULATIONS.

## RATES OF POSTAGE.

All letters from one part of Great Britain to another (including the Local  
Penny Posts and the London Twopenny Post) are charged, if prepaid, and not  
Exceeding half an ounce .. .. . 1d.  
Exceeding half an ounce, and not exceeding 1 ounce .. 2d.  
and so on at the rate of 2d. for every additional ounce or fraction of an ounce.  
Unpaid and unstamped letters are charged double postage on delivery :  
Letters or packets exceeding 16 ounces in weight, not forwarded—except,  
Parliamentary petitions and addresses to her Majesty,  
Parliamentary proceedings,  
Letters or packets addressed to, or received from, places beyond sea, or  
To and from public departments and public officers.

## HOURS OF POSTING.

## FOR THE EVENING MAILS.

The receiving houses close at 5 30 P.M. Letters are received for the evening's  
dispatch at the Branch Post-offices at Charing-cross, Old Cavendish-street, and  
108 Blackman-street, Southwark, until 6 P.M., and, with a fee of one penny,  
which must be paid by affixing a stamp to the letter, until 6 45 P.M. At the  
Branch Post-office in Lombard-street, the box remains open without additional  
fee until 6 P.M., and until 7 P.M., by affixing a penny stamp. At the General  
Post-office in St. Martin's-le-grand until 6, free, and 7 by payment of the extra  
charge as at Lombard-street. From 7 to half-past 7 P.M., letters may be posted  
there upon payment of a fee of sixpence each, which must, as well as the postage,  
be prepaid. Letters intended to pass by outward mails to foreign parts must be  
posted at the above hours.

N.B. Newspapers for the evening mails must be put into the receiving houses  
before 5 P.M., the Branch offices before 5 30, or General Post-office before 6 P.M.  
From 6 P.M. to 7 30, on payment of one halfpenny late fee.

MORNING MAILS are forwarded to most of the principal towns in England and  
Wales, and to all parts of Ireland and Scotland, for which the letter boxes at the  
Receiving Houses will be open till 7 A.M. for newspapers, and 8 A.M. for letters;  
and those at the Branch Offices, Charing-cross, Old Cavendish-street, and the  
Borough, for newspapers until half-past 7 A.M., and for letters until 8 A.M. At  
the General Post Office and the Branch Office in Lombard-street, the boxes will  
close for newspapers at a quarter before 8 A.M., and for letters at half-past 8 A.M.  
Foreign letters are subject to various rates of postage, the amounts of which can  
be ascertained at any of the Branch Offices or Receiving Houses.

\* It is requested that all letters be fully and legibly addressed, and posted as  
early as convenient. Also, that whatever kind of stamp is used, that it invariably  
stand on the right hand corner of the letter above the address.

British and Colonial papers between British Colonies, without passing through  
the United Kingdom to be free; except that 1d. may be allowed as a gratuity to  
the master of the vessel conveying them.

Newspapers, British, Foreign, or Colonial, passing between British or Colonial  
and Foreign Ports, and through the British post, to pay 2d.; if not through the  
British post, 1d.

Such papers passing between places in British North America or British West  
Indian Colonies, to pay a uniform inland rate of 3d.

Each supplement to be charged as a separate newspaper, whether inclosed  
separately or not.

The Postage rate to Hanover is altered to a uniform British rate of 6d.; pre-  
payment of the whole postage of British and Foreign rates optional. News-  
papers 1d.

MONEY ORDERS for sums not exceeding £2 are charged threepence; not exceed-  
ing 15, sixpence : above £5 no money order can be obtained. They are granted and  
paid between the hours of ten and four daily. Persons residing in London should  
instruct their correspondents who may obtain money orders, to make them pay-  
able at the most convenient office, as money orders granted, bearing "Post Office  
London" can be paid at the principal office only, in St. Martin's-le-Grand.





#### THE ENGLISH FARM-YARD.

The Farm-Yard of Old England—blest be thou  
With peace and plenty, liberty, and worth;  
Pride of the British yeomen who went forth  
To wreath a garland for their country's brow  
At Agincourt. God speed thy sturdy plough,  
Which fears not to compete with south or north,  
Free, unprotected; for, with English skill,  
And wealth, and energies, and more—the will,  
To triumph o'er all odds, thy Harvest Home  
The joy of Ceres' sickle still shall be;  
And round the hospitable board shall foam  
The nut-brown cup in rural jubilee.  
The Farm-Yard of Old England, he thou blest;  
The homestead pride of Britain's honoured crest

And equal homage to Old England's sail  
And equal honour to her Commerce free,  
Whose wings o'er waves of prejudice prevail,  
Whose spirit lights the distant, darkest sea;  
Cradle of England's navy, joy to thee;  
Ark of our liberty, which cannot quail  
Against the world, triumphant still may be  
Thy path against the billow and the gale.  
Bound in the bond of brother-love, the swain  
Of rural cot will hail the hardy tar,  
And the brave ploughman of the stormy main  
Will love that cot when journeying from afar,  
Honour to England's sickle, sail, and trade,  
And long may the olive wreath her glorious blade!

#### SIR R. PEEL'S NEW CORN BILL OF 1846.

The important measure brought in by Sir Robert Peel last Session for the gradual repeal of the Corn-laws is a very brief one. It commences by stating, that after the passing of the Act, till the 1st of Feb. 1849, the duties set forth in the schedule shall be payable upon all corn, &c., imported. It then recites, that on and after the 1st Feb. 1849, the following duties only shall be levied:—

Upon all Wheat, Barley, Bear or Bigg, Oats, Rye, Pease, and Beans, for every quarter .. .. . 1 0  
And so in proportion, for a less quantity.  
Upon all Wheat Meal and Flour, Barley Meal, Oatmeal, Rye Meal and Flour, Pea Meal, and Bean Meal, for every cwt. 0 4½  
And so in proportion for a less quantity.  
The average prices are to be still made up according to the regulations made by 5 and 6 Victoria, cap. 14.

The following is the schedule above referred to:—  
If imported from any foreign country.

WHEAT:—Whenever the average price of Wheat made up and published in the manner required by law shall be for every quarter under 48s., the duty shall be	s. d.
48s. and under 49s. .. .. .	10 0
49s. and under 50s. .. .. .	9 0
50s. and under 51s. .. .. .	8 0
51s. and under 52s. .. .. .	7 0
52s. and under 53s. .. .. .	6 0
53s. and upwards .. .. .	5 0
53s. and upwards .. .. .	4 0

BARLEY, BEAR, OR BIGG:—Whenever the average price of Barley, made up and published in the manner required by law, shall be for every quarter under 26s., the duty shall be for every quarter .. .. .	s. d.
26s. and under 27s. .. .. .	5 0
27s. and under 28s. .. .. .	4 6
28s. and under 29s. .. .. .	4 0
29s. and under 30s. .. .. .	3 6

29s. and under 30s. .. .. .	s. d.
30s. and under 31s. .. .. .	3 0
31s. and upwards .. .. .	2 6
31s. and upwards .. .. .	2 0

OATS:—Whenever the average price of Oats, made up and published in the manner required by law, shall be for every quarter under 18s. the duty shall be for every quarter .. .. .	s. d.
18s. and under 19s. .. .. .	4 0
19s. and under 20s. .. .. .	3 6
20s. and under 21s. .. .. .	3 0
21s. and under 22s. .. .. .	2 6
22s. and upwards .. .. .	2 0
22s. and upwards .. .. .	1 6

RYE, PEASE, AND BEANS:—For every quarter, a duty equal in amount to the duty payable on a quarter of Barley.

WHEAT MEAL AND FLOUR:—For every barrel, being one hundred and ninety-six pounds, a duty equal in amount to the duty payable on thirty-eight gallons and a half of Wheat.

BARLEY MEAL:—For every quantity of two hundred and seventeen and a half pounds, a duty equal in amount to the duty payable on a quarter of Barley.

OATMEAL AND GROATS:—For every quantity of one hundred and eighty-one pounds and a half, a duty equal in amount to the duty payable on a quarter of oats.

RYE MEAL AND FLOUR:—For every barrel, being one hundred and ninety-six pounds, a duty equal in amount to the duty payable upon forty gallons of Rye.

PEA MEAL AND BEAN MEAL:—For every quantity of two hundred and seventy-two pounds, a duty equal in amount to the duty payable on a quarter of Pease or Beans.

If the produce of and imported from any British Possession out of Europe:

Wheat, Barley, Bear, or Bigg, Oats, Rye, Pease, and Beans, the duty shall be for every quarter .. .. .	s. d.
Wheat Meal, Barley Meal, Oatmeal, Rye Meal, Pea Meal, and Bean Meal, the duty shall be for every cwt. .. .. .	1 0
Wheat Meal, Barley Meal, Oatmeal, Rye Meal, Pea Meal, and Bean Meal, the duty shall be for every cwt. .. .. .	0 4½



## THE SUGAR DUTIES BILL.

THE Act of Parliament passed 1846, for the regulation of the Sugar Duties, provides for a gradual diminution of these Duties. The amount is to be levied upon the following scale:—

1. On Sugar, or Molasses, the growth and produce of any British Possession in America, or of any British Possession within the limits of the East India Company's Charter, into which the importation of Foreign Sugar is prohibited, and imported from thence, from and after the passing of this Act:

	£	s.	d.
Candy, Brown or White, Double Refined Sugar, or Sugar equal in quality to Double Refined, for every cwt. . . . .	1	1	0
Other Refined Sugar, or Sugar rendered by any process equal in quality thereto, for every cwt. . . . .	0	18	8
White Clayed Sugar, or Sugar rendered by any process equal in quality to White Clayed, not being refined, for every cwt. . . . .	0	16	4
Brown Sugar, being Muscovado or Clayed, or any other Sugar not being equal in quality to White Clayed, for every cwt. . . . .	0	14	0
Molasses, for every cwt. . . . .	0	5	3

2. On Sugar the growth and produce of any other British Possession within the limits of the East India Company's Charter:

	From and after the passing of this Act to 5th July, 1847, inclusive.	From and after 5th July, 1847, to 5th July, 1848, inclusive.	From and after 5th July, 1848, to 5th July, 1849, inclusive.	From and after 5th July, 1849, to 5th July, 1850, inclusive.	From and after 5th July, 1850, to 5th July, 1851, inclusive.	From and after 5th July, 1851.
Candy, Brown or White, Double Refined Sugar, or Sugar equal in quality to Double Refined, for every cwt. . . . .	1 6 3	1 5 6	1 4 4	1 3 3	1 2 0	The same duties as on Candy, Sugar, and Molasses, the produce of other British Colonies.
Other Refined Sugar, or Sugar rendered by any process equal in quality thereto, for every cwt. . . . .	1 3 4	1 2 8	1 1 8	1 0 8	0 19 8	
White Clayed Sugar, or Sugar rendered by any process equal in quality to White Clayed, not being Refined, for every cwt. . . . .	1 0 5	0 19 10	0 18 11	0 18 1	0 17 2	
Brown Sugar, being Muscovado, or Clayed, or any other Sugar, not being equal in quality to White Clayed, for every cwt. . . . .	0 17 6	0 17 0	0 16 3	0 15 6	0 14 9	
Molasses, for every cwt. . . . .	0 6 6	0 6 4	0 6 1	0 5 9	0 5 6	

3. On Sugar, the growth and produce of any Foreign country, and which shall be imported into the United Kingdom, either from the country of its growth or from some British Possession, having first been imported into such British Possession from the country of its growth:

	From and after the passing of this Act to 5th July, 1847, inclusive.	From and after 5th July, 1847, to 5th July, 1848, inclusive.	From and after 5th July, 1848, to 5th July, 1849, inclusive.	From and after 5th July, 1849, to 5th July, 1850, inclusive.	From and after 5th July, 1850, to 5th July, 1851, inclusive.	From and after 5th July, 1851.
Candy, Brown or White, Double Refined Sugar, or Sugar equal in quality to Double Refined, for every cwt. . . . .	1 11 6	1 10 0	1 7 9	1 5 6	1 3 3	The same duties as on Candy, Sugar, and Molasses, the produce of British Colonies.
Other Refined Sugar, or Sugar rendered by any process equal in quality thereto, for every cwt. . . . .	1 8 0	1 6 8	1 4 8	1 2 8	1 0 8	
White Clayed Sugar, or Sugar rendered by any process equal in quality to White Clayed, not being Refined, for every cwt. . . . .	1 4 6	1 3 4	1 1 7	0 19 10	0 18 1	
Brown Sugar, being Muscovado, or Clayed, or any other Sugar, not being equal in quality to White Clayed, for every cwt. . . . .	1 1 0	1 0 0	0 18 6	0 17 0	0 15 6	
Molasses, for every cwt. . . . .	0 7 10	0 7 6	0 6 11	0 6 4	0 5 9	

4. That the Bounties or Drawbacks following be paid and allowed upon the exportation of certain descriptions of Refined Sugar from the United Kingdom (that is to say),

	£	s.	d.
Upon Double Refined Sugar, or Sugar equal in quality to Double Refined, for every cwt. . . . .	1	0	0
Upon other Refined Sugar in Loaf, complete and whole, or Lumps duly Refined, having been perfectly clarified and thoroughly dried on the stove, and being of an uniform whiteness throughout, or such Sugar pounded, crushed, or broken, for every cwt. . . . .	0	17	0
Upon Bastard or Refined Sugar, broken in pieces, or being ground, or powdered Sugar pounded, or crushed or broken, for every cwt. . . . .	0	14	0

## ACTS FOR THE SOCIAL IMPROVEMENT AND COMFORT OF THE PEOPLE.

It was a gratifying feature of the last session of Parliament, that, although engaged with questions of the utmost importance, commercial and political, it yet found time to frame and carry measures calculated to augment the comforts of the people, and to improve their health and physical condition generally.

One measure eminently deserving this character was the "Act to Encourage the Establishment of Public Baths and Wash-houses." It is a fact beyond dispute that bathing has not only a beneficial effect upon the body, by promoting circulation, and facilitating the healthy action of the functions, but it also strengthens the mental faculties.

According to this Act the Council of any Municipal Borough in England, Wales, or Ireland; and also the Vestry in any parish in England or Wales, not included in a Municipal Borough, may carry the plan into effect at the expense of the rates. The acquisition of lands is rendered easy by the facilities afforded; and the Public Works Loan Commissioners will grant loans, to be repaid by twenty yearly instalments.

It is enacted that, when a parish agrees on the adoption of these plans, there must be obtained the approval of the Home Secretary, who is also to approve the by-laws; and before any public lands are appropriated, or any loans obtained, the consent of the Treasury must be procured. With these exceptions, the local authorities are left entirely without control: on them the duty devolves of considering the views laid down by the Legislature, so as to carry them out in the most judicious and advantageous manner.

This bill also empowers any Town Council, or other similar body, having jurisdiction in a corporate town, Drainage Commissioners, or Poor-law Guardians, on receipt of two medical men's certificate, vouching the existence of any public nuisance, to lodge a complaint with two Justices of the Peace. The Justices, on being satisfied of the validity of such complaint, are required to make an order for the cleansing, whitewashing, or purifying, of any dwelling-house, or other building, or for the removal of the nuisance complained of in the certificate. If this order is disobeyed, the complaining parties are to have the power of entering upon the premises, and of themselves carrying these remedial measures into effect. The expenses so incurred may be recovered summarily from the owners of the property in question.

The President of the Council or any three members of that Board (of whom the Lord President or one of the Secretaries of State is to be one) are empowered to issue orders at any time to prevent the spreading of contagious or epidemic diseases in England.

All penalties leviable under this Act are to be applied towards the relief of the poor. All orders made by the Privy Council are periodically to be laid before Parliament. Provision is made for the payment out of the poor-rates of such expenses as are not defrayed by the owners of the property complained against.

## RAILWAY GAUGES.

THE Act for Regulating the Gauge of Railways, which passed last Session, after stating the expediency of defining that Gauge, declares that hereafter it will not be lawful, except in cases mentioned, to construct any railway for the conveyance of passengers on any gauge other than four feet eight inches and half an inch in Great Britain, and five feet three inches in Ireland. The exceptions are set forth, and on certain railways the broad gauge is to be used. By the 4th provision it is declared that after the passing of the act the gauge of any railway used for the conveyance of passengers is not to be altered. Railways constructed contrary to this act may be shuted. There is a provision for the recovery of penalties.

## THE ACT FOR THE DISSOLUTION OF RAILWAY COMPANIES.

THE Act 9 and 10 of Victoria, cap. 28, to facilitate the dissolution of certain Railway Companies, provides, by the 1st Section, that persons who shall have entered into a contract for the formation of a Company for making a Railway, &c., may dissolve the same under certain conditions therein making.

In the 2nd Section, it is enacted that the Committee, &c., may call meetings of shareholders to consider the propriety of a dissolution.

Section 3 provides that the shareholders may require the Committee to call a meeting, and in default may call it themselves.

Sections up to 14 relate chiefly to the mode of taking the votes. The 15th Section is the most important of the Act. It is as follows:—"And be it enacted, that to constitute a meeting under the provisions of this Act for the purpose of deciding on a dissolution, or bankruptcy, persons representing at least one third part of the shares in the undertaking actually issued or given, either as shares, scrip, or receipts, must be present and vote; and that for the purpose of effecting a dissolution, and as to Bankruptcy, there must be either a majority of the votes of the whole scrip of the Company issued as aforesaid, or at least three-fifths of the votes of persons present and voting, either as shareholders or proxies, in favour of the motion for dissolution, and for the bankruptcy, if so resolved on."

By Section 18, it is enacted that no votes shall be allowed except for scrip, &c., actually issued or given before 31st March, 1846.

According to Section 26, if the proposal of dissolution be rejected, no new meeting can be called for six months to consider the question.

Section 27, provides that any three of the Committee, or any creditor or creditors, may petition for a fiat in bankruptcy.

It is also provided, that, after the dissolution of any Company, no action, &c., can be brought by any attorney or solicitor, until one month after a bill of fees shall have been delivered.

Another important clause enables defendants to recover contributions from their Committeemen:—"And be it enacted, that where the dissolution of a Company shall have been resolved under this Act, if judgment shall have been recovered, or shall afterwards be recovered in any action against any member of the Committee, for any debt due from such Company, or from such Committee, in respect of the undertaking, the member against whom such judgment shall have been recovered shall be entitled at law to a contribution from each of the other members of such Committee towards the payment of the moneys recovered by such judgment, and of all costs and expenses in relation thereto, of such a share of the whole amount of such moneys, costs, and expenses, as would have been borne by such respective members upon an equal contribution by all the members of such Committee, and may recover the contributions to which he may be so entitled, or any of them, by action or actions of debt, or on the case against all or any of such other members of such Committee, but so that no such member shall be liable in any such action as aforesaid for more than the share to which he shall respectively be liable to contribute under this provision."



## THE POOR REMOVAL BILL.

This bill, which excited so much discussion in the House of Commons, consists but of 10 clauses. Clause 1 enacts that no person shall be removed from any parish in which he or she shall have resided for five years. Clause 2, that no widow shall be liable to be removed for twelve months after the death of her husband. Clause 3, that no child, whether legitimate or illegitimate, under the age of 16 years, shall be liable to be removed, except with its father or mother. Clause 4 and 5, that sick persons shall not be liable to be removed, except the Justices are satisfied that the sickness or accident will produce permanent disability, but that no settlement is to be gained by their non-removal. Clause 6 imposes a penalty not exceeding £5, nor less than £2, for unlawfully procuring the removal of poor persons to other parishes. Clause 7 provides for the delivery of paupers under a warrant of removal. Clause 8 constitutes this Act part of the Act of 4 and 5 William IV. for the Amendment and better Administration of the Poor Laws; and clauses 9 and 10 limit this Act to England.

## APPLICATION FOR LOCAL ACTS.

It is provided by the New Act of Parliament "for making preliminary Inquiries in certain Cases of Applications for Local Acts," that in any case where it is intended to make an application to Parliament for an act for the establishment of any waterworks, or for draining, paving, cleansing, lighting, or otherwise improving any town, district, or place; or for making, maintaining, or altering any burial-ground or cemetery; or for continuing, altering, or enlarging any of the powers or provisions contained in any act relating to such purposes, a notice in writing of such intention to apply to Parliament in the next ensuing session for an act for any of the above objects, shall, on or before the last day of November,—or, in case such day shall fall on a Sunday, then on the next day preceding in each year,—be delivered at the office of the Woods and Forests, with all information on the subject. The Commissioners of the Woods and Forests are to appoint a surveying officer to make inquiries on the spot of the intended work, who may require the attendance of witnesses. The expenses are to be paid by the promoters. It is expected that this measure, founded on the report of a Select Committee on Private Bills, will greatly facilitate local acts, and save considerable expense.

## THE SMALL DEBTS ACT.

This act may be considered as an experiment for the purpose of effecting the important object of recovering debts at a small expense. The monstrous charges for recovering debts under the old system, were disgraceful to a country like England, which boasts of its justice and equity.

This act contains 143 provisions, and four schedules.

It would seem that the new law will not affect the Palace Court, which possesses a jurisdiction to £20, as it is not considered one "of her Majesty's Superior Courts of Record;" but, with regard to the superior courts, persons bringing actions after the passing of the Act (28th August), "for which a plaintiff might have been entered in any court bolden under this Act," are to be liable, under certain circumstances, to the payment of costs.

The primary object of the Act was to prevent the denial of justice, which existed in respect to claims under £20, as, in innumerable cases, the costs exceeded the debt, and insolvency resulted; and in other cases debtors escaped with impunity, because of the expense of the remedy. By the 58th section, the jurisdiction of the County Court is to extend to "debt or damage" of not more than £20, whether on balance or otherwise, with the exception, among other things, of actions for malicious prosecutions, libel, slander, seduction, or breach of promise of marriage; but false imprisonment and assault cases are not excluded; and, by another provision, the parties to the action, their wives, and all other persons, may be examined.

By the 78th section, all forms of procedure to be used in the County Courts under the Act, with the general rules for regulating the practice and proceedings of the same, are to be framed by the Judges of the superior courts of Common Law at Westminster.

It is provided by the 129th clause, that if any action shall be commenced in any of the superior Courts of Record (other than those specified) for any cause for which a plaintiff might have been entered in any court holden under the Act, and a verdict be found for the plaintiff for a sum less than £20, if the said action be founded on contract, or less than £5, if it be founded on fact, the plaintiff shall have judgment to recover the sum only, and no costs; and if a verdict shall not be found for the plaintiff, the defendant shall be entitled to his costs, as between attorney and client; "unless, in either case, the judge who shall try the cause shall certify on the back of the record, that the action was fit to be brought in such superior court."

An important part of the Act is that relating to execution. Our readers are, perhaps, aware that, under the Common Law, as administered by the Courts at Westminster, a party who had obtained a judgment was entitled to take out execution immediately for the whole amount of debt and costs. It was optional with him to sue out a writ against the goods, or against the body, of his debtor; and, if he failed in pursuing the goods, he might afterwards avail himself of his remedy against the person.

Such right to proceed at once to execution was not controlled by any discretionary power of the Court; though, in some cases, the Judge who tried a cause at Nisi Prius was enabled to give speedy execution to a successful plaintiff—that is, to allow him to take it immediately after the verdict.

The Small Debts Act gives a discretionary power to the Judge, which had been previously conferred upon various Commissioners of Courts of Request, to order the sum recovered to be paid by instalments; and, in such case, execution is not to issue till after default in paying the first instalment, and then only by order of the Judge, for the whole or a part, as he may think proper. Whenever execution is awarded by the Judge, he is empowered to prescribe the times and manner in which the levy is to be made. Thus, in effect, the whole control of this process is placed in his hands.

But, it is in execution against the body, that the most important change is introduced.

In 1837, arrest on mesne process was abolished, a power being reserved to the Judge to issue a *capias*, on an affidavit by the plaintiff of his belief that the debtor was about to leave the kingdom. The next step was the abolition of arrest on final process in cases exceeding £20, which was effected by the 7 and 8 Victoria. A power of committal was conferred upon the Judge, in certain cases of fraud; though, owing to the clumsy manner in which the act was drawn, it was found impossible for any Judge to exercise such power. In 1845, it was found that something must be done for the relief of small creditors, who suffered greatly under this statute, and, accordingly, the 8 and 9 Victoria was passed, entitled, "An Act for the Better Securing the Payment of Small Debts:" whereby the creditor was enabled to apply to the Court of Bankruptcy to obtain a discovery of the property of his debtor, and punishment in case of fraud. The statute afforded a partial remedy for the evil; yet it seemed a strange and circuitous way

of proceeding, to drive a plaintiff to the Court of Bankruptcy, when the proper remedy could be more promptly and efficaciously administered by the Court in which his judgment was obtained.

The Small Debts Act makes a more ample provision for the security of the creditor. It enacts, "that any person who has obtained a judgment may summon his debtor before the County Court, where he may be examined touching his estate and effects, the circumstances under which he contracted the debt, the expectation which he had of paying it, and other matters in relation thereto; and, if it shall appear to the Judge that he has obtained credit on false pretences, or fraudulently, or contracted his debt without reasonable expectation of paying it, or in certain other cases of fraud or improper conduct, the Judge shall have power to commit him to prison for any period not exceeding forty days." This will be found to be a most important provision; and it will, no doubt, have a salutary effect in the transactions of small traders.

A most important feature of the Act is the very moderate scale of fees authorised in all proceedings under it. The Act, indeed, appears to be a most equitable one, as it will be seen that there is a different scale of charges for debts amounting to £1, £2, £5, £10, and upwards.

The scale is as follows:—

FEES.	AMOUNT OF DEMAND.					
	Not exceeding 20s.	Exceeding 20s. and not exceeding 40s.	Exceeding 40s. and not exceeding £5.	Exceeding £5, and not exceeding £10.	Founded on Contract.	Founded on Tort.
<b>JUDGE'S FEES.</b>						
Every summons .. .. .	s. d.	s. d.	s. d.	s. d.	s. d.	a. d.
Every hearing without a jury .. .. .	0 3	0 6	1 0	2 0	3 0	3 0
Every hearing or trial with a jury .. .. .	1 0	1 6	2 6	7 6	10 0	15 0
Every order or judgment, or application for an order .. .. .	2 0	3 0	5 0	10 0	15 0	20 0
Every order or judgment, or application for an order .. .. .	0 3	0 6	1 0	2 0	3 0	3 0
<b>CLERK'S FEES.</b>						
Entering every plaint and issuing the summons thereon .. .. .	0 3	0 6	1 0	2 0	3 0	3 6
Every subpoena, when required .. .. .	0 3	0 6	0 9	1 0	1 6	1 6
Every hearing, trial, or nonsuit without a jury .. .. .	0 4	0 6	1 0	1 6	2 0	3 6
Adjournment of any cause .. .. .	0 3	0 4	0 6	1 0	2 0	2 0
Entering and giving notice of special defence .. .. .	0 3	0 6	1 0	1 6	2 0	2 0
Swearing every witness for plaintiff or defendant .. .. .	0 2	0 2	0 3	0 4	0 6	1 0
Entering and drawing up every judgment and order, and copy thereof .. .. .	0 3	0 6	1 0	1 6	2 6	3 0
Payment of money in or out of Court, whether or not by instalments at different times, including notice thereof, and taking receipt .. .. .	0 2	0 4	0 6	—	—	—
Paying money into Court, and entering same in books, and notice thereof, or of sum in full satisfaction having been paid into Court, each instalment or payment .. .. .	—	—	—	0 6	0 8	1 0
Payment of money out of Court, and taking receipt, exclusive of stamp .. .. .	—	—	—	0 9	1 0	1 6
Every search in the books .. .. .	0 2	0 2	0 4	0 6	1 0	1 0
Issuing every warrant, attachment, or execution .. .. .	0 6	0 6	1 0	1 6	2 6	3 0
Supersedeas of execution, or certificate of payment, or withdrawal of cause .. .. .	0 3	0 6	0 6	1 0	1 6	2 0
Warrant of commitment for an insult or misbehaviour in Court .. .. .	1 0	1 0	1 0	1 0	1 0	1 0
Entering and giving notice of jury being required .. .. .	0 6	0 9	1 0	1 6	2 0	2 6
Issuing summons for jury .. .. .	0 6	0 9	1 0	1 6	2 0	2 6
Swearing jury .. .. .	0 6	0 8	0 10	1 0	1 6	1 6
Every hearing, trial, or nonsuit with a jury .. .. .	1 0	1 6	2 0	3 0	5 0	7 6
Taking recognisance or security for costs .. .. .	—	—	—	2 0	2 6	3 0
Inquiring into sufficiency of sureties proposed, and taking bond on removal of plaintiff, or grant of new trial, or other occasion .. .. .	2 6	2 6	2 6	2 6	2 6	2 6
Taking costs .. .. .	—	—	—	1 0	2 0	3 0
<b>HIGH BAILIFF'S FEES.</b>						
Calling every cause .. .. .	0 2	0 2	0 4	0 6	1 0	1 6
Affidavit of service of summons out of the jurisdiction .. .. .	0 2	0 3	0 6	1 0	1 6	2 0
Serving every summons, order, or subpoena within one mile of Court-house .. .. .	0 3	0 4	0 6	0 10	1 0	1 6
If above one mile, then extra for every other mile .. .. .	0 2	0 2	0 3	0 4	0 4	—
Execution of every warrant, precept, or attachment against the goods or body, within one mile of the Court-house .. .. .	1 6	1 6	3 6	4 0	5 0	7 0
If above one mile, then extra for every other mile .. .. .	0 3	0 3	0 4	0 6	0 6	0 6
If two officers be necessary in the judgment of the Court, then extra, within one mile of the Court-house .. .. .	1 0	1 6	2 0	2 0	2 6	3 0
If above one mile, then extra for every other mile .. .. .	0 3	0 3	0 4	0 6	0 6	0 6
Keeping possession of goods till sale, per day, not exceeding five days .. .. .	1 0	1 6	2 0	2 0	2 6	3 0
Carrying every delinquent to prison, including all expenses and assistants, per mile .. .. .	1 0	1 0	1 0	1 0	1 0	1 0
Issuing warrant to clerk of another Court .. .. .	1 0	1 6	2 0	2 6	3 0	3 6

N.B.—Where the plaintiff recovers less than his claim, so as to reduce the scale of costs, the plaintiff to pay the difference. The several fees payable on proceedings in replevin to be regulated on the same scale, by the amount distrained for; and on proceedings for the recovery of tenements, by the yearly rent or value of the tenement sought to be recovered.



## NEW DOMESTIC HINTS.

FROM "SOYER'S GASTRONOMIC REGENERATOR."

## DIRECTIONS FOR LARDING.

Choose the firmest bacon you can obtain, quite fat, and not at all red, or it would break and cause a deal of trouble. To cut it, take off the piece of lean at the bottom, lay it upon a board with the rind upwards, and beat gently with a cutlet bat, trim the sides, and cut it into bands the breadth that you may require your lardons in length; if for a fillet of beef, two inches; for fricandeau, turkey, poularde, fowl, pheasant, or sweetbread, an inch and a half; and for lamb's sweetbreads much smaller. Take one of the bands, place it before you with the rind downwards, and with a sharp knife cut it in slices, (but not separating it from the rind), of the thickness you require for the article you are about to lard, then place your hand at the top, press lightly, and draw your knife straight along as if cutting the bacon in slices, so as to form the lardons square at each end, commencing cutting from the heel of the knife, and finishing at the point.

## POULTRY.

Never use turkeys before Michaelmas, and not after the latter end of March. Ditto turkey poult before the end of June, and not after September. Capons, poulards, pullets, and fowls, use all the year round. Begin about March with the spring chickens, till the beginning of July.

Geese are in almost all the year round. Goslings, or green geese, commence early in the spring, and are called so till the end of September; thus there is hardly any difference between them and the Michaelmas geese.

Ducks and ducklings the same. Rabbits and pigeons may be used all the year round; but it is only in the early part of the spring that I use tame rabbits.

Guinea-fowls are used when pheasants go out, which is about the latter end of January, and are used till the end of May. Their eggs are very good, more delicate than the common ones.

Never use grouse before the 14th Aug., and after the 22nd December. Black cocks and grey hens about the same time as grouse, but they are more uncertain.

Ptarmigans are sent from Norway about the middle of January, and continue till March, but that depends much upon the weather.

Though the shooting season for partridges is the 1st of September, and lasts till the end of January, I never cook one before the 3rd, except being desired to do so, but I often keep some for three weeks after the shooting season is over.

The same with pheasants, which begins from the 1st of October till the end of January. By hanging them by the necks and putting a piece of garlic in the beak and a little cayenne, I one cold winter kept one six weeks after the shooting time had expired, which I afterwards presented to a party of real gourmets, who said it was the best they had partaken of during the season.

Use wild ducks, widgeons, teal, pintails, larks, golden plovers, snipes, woodcocks, from the commencement of November till the latter part of March, after which the flesh becomes rank and unfit for the table.

Young pea-fowls are very good, and make a noble roast, and are in season from January till June, but they are very uncertain.

Plovers' eggs, my favourite, an unparalleled delicacy, come about the middle of March, and are not considered good after the latter end of May; but when I can get them fresh in June, I do not discontinue their use, because they are, in my estimation, worthy of the patronage of the greatest gourmet.

## FISH.

For the last few years there has been quite an alteration in the description of the seasons for these golden and silvery inhabitants of the deep.

Except the cod-fish, which come in September, and by strictness of rule must disappear in March, the season for all other sea-fish becomes a puzzle; but the method I follow during the season is as follows:

Crimped Gloucester is plentiful in June and part of July, but it may be procured almost all the year round.

Common salmon from March to July.

Salmon peale from June to July.

Spey trout from May to July.

Sturgeon, though not thought much of, is very good in June.

Turbot are in season all the year round.

John Dories depend entirely upon chance, but may be procured all the year round for the epicure, May excepted.

The original season of Yarmouth mackerels is from the 12th of May till the end of July; now we have Christmas mackerel; then the west of England mackerel, which are good at the beginning of April.

Haddock and whiting all the year round.

Skate all the winter.

Smelts from the Medway are the best, and are winter fish; the Yarmouth and Carlisle are good, but rather large; the Dutch are also very large, which often lose in the estimation of the epicure.

Brill is like turbot as to season.

Slips are similar to soles, good all the year round.

Gurnets are rather a spring fish.

Flounders and diamond plaice are in full season from June to July.

Red mullets vary very much now, but the beginning of the season was formerly the 12th of May; we had none this year, except at a very extravagant price.

Always use them when they are to be obtained.

Fresh herrings are in season from November to January.

River eels all the year round.

Lobsters in the spring and part of the summer.

Prawns ditto.

Crabs are best in May.

Oysters begin in August, but are not very good till September.

Barrelled oysters begin on the 15th of September, and last till the end of February.

Barrelled cod, Lent fish, are best in winter or about March.

Sprats come in about the 8th of November.

## HOW EVERYTHING SHOULD BE IN COOKING.

All clear soup must not be too strong of meat, and must be of a light brown, berry, or straw colour.

All white or brown thick soups must be rather thinnish, lightly adhering to the back of the spoon.

All purées must adhere little more to the back of the spoon.

Any Italian paste must be very clear, rather strong, and the colour of pale sherry.

All kinds of fish sauce should be thicker for boiled fish than for broiled or fried.

Brown sauce should be a little thinnish and the colour of a horse-chesnut.

White sauce should be of the colour of ivory and thicker than brown sauce.

Cream or Dutch sauce, must be rather thickish, and cannot be too white.

Demi-glacé requires to be rather thin, but yet sufficiently reduced to envelop

any pieces of meat, game, poultry, &c., with which it is served.

Every description of fish should be well done, but not over-boiled, broiled, stewed, or fried.

Beef and mutton must be underdone, even for joints, removes, and entrées.

Lamb requires to be more done.

Veal and pork must be well done.

Venison must be underdone, red in the middle, and full of gravy, but not raw.

Poultry, either broiled, stewed, boiled, or roasted, must be done thoroughly, not cutting in the least red, but must still be full of gravy.

Pheasants and partridges must be well done through, yet full of gravy.

Grouse, black cocks, grey hens, and ptarmigans, must cut reddish, with plenty of gravy, but not too much underdone.

All kinds of water-fowl must be very much underdone, so that the blood and gravy follow the knife in carving.

Plovers must be rather underdone, but done through.

Rabbits and pigeons must be well done.

Second-course savoury dishes must be rather highly seasoned, but with a little moderation.

Pastry should, when baked, be clear, light and transparent, and of a beautiful straw colour; the body of a crustade the same.

Large pies, timbales, and casseroles of rice must be of a yellowish brown colour.

Jellies require to be very white and transparent for fruits, and not too firm, but better so than too delicate.

Orange jellies should be of a deep orange colour, and all fruit jellies as near as possible to the colour of the fruit.

Creams should be very light and delicate, but fruit creams must be kept of the colour of the fruits they are made of.

For all the demi-glacé removes the ice must be firm, but not the least hard.

All kinds of soufflé or fondu must be well done through, or they would be very indigestible, clog the delicate palate, and prevent the degustation of the generous claret which flows so freely after dinner on the table of the real epicure.

I recommend sugar in almost all savoury dishes, as it greatly facilitates digestion and invigorates the palate, but always increase or diminish the quantity according to the taste of your employer.

I often introduce onions, eschalots, or even a little garlic in some of my most delicate dishes, but so well blended with other flavours that I never have a single objection even by those who have a great dislike to it.

Horseradish and herbs of every description may always be used with discretion to great advantage.

Contrary to the expressed opinion of every other previous publication, I say that too much seasoning is preferable to too little, while you fear over-seasoning you produce no flavour at all; by allowing each guest to season for himself, your sauce attains a diversity of flavours. The cook must season for the guest, not the guest for the cook.

I have always found great advantage in dressing the greatest part of my entrées on a thin roll of mashed potatoes; this has never been found objectionable, as it is so thin that it is imperceptible when covered with the sauces, and serves to prevent any entrées dressing in crown from being upset, before going on table, by the carelessness of the servant.

The mashed potatoes which are to be used for disbing up are simply prepared as follows:—Plain, boll, or steam six or eight large mealy potatoes; when well done peel and put them into a stewpan with two ounces of butter, and a little salt; then with the prong of a fork whisk them till quite in purée; then add two table-spoonsful of milk, work up with a small wooden spoon till forming a paste; then lay a small quantity on a clean cloth, roll it to the circumference of a fourpenny or sixpenny piece, and form a round with it in your dish according to the size of the entrée; alter the proportion according to the size of the flanc or remove.

## NEW AND ECONOMICAL LOBSTER SAUCE.

Break up a fresh lobster, use the solid flesh for salad or any other purpose, pound the soft part and shell together (in a mortar) very fine, place the whole in a stewpan, cover with a pint of boiling water, place over the fire, and let simmer ten minutes, when pass the liquor through a hair sieve into a basin, and use for making melted butter as in the last, to which add a little cayenne pepper and a piece of anchovy butter the size of a walnut; if any red spawn in the lobster, pound and mix it with a small piece of fresh butter, and add to the sauce with a little lemon-juice when upon the point of serving; an anchovy pounded with the shells of the lobster would be an improvement, some of the flesh may be served in the sauce.

## SHRIMP SAUCE.

Is very excellent made by pounding half a pint of shrimps with their skins, boiling ten minutes in three parts of a pint of water, finishing as directed for lobster sauce, and always serving very hot.

## ANCHOVY SAUCE.

Is made by adding a spoonful of Harvey sauce and two of essence of anchovy, with a little cayenne, to half a pint of melted butter; shrimps, prawns, or even blanched oysters may be served in it.

## WHITE AND BROWN SAUCES.

Cut and chop a knuckle of veal, weighing about four pounds, into large dice; butter the bottom of a large stewpan with a quarter of a pound of butter, add two onions, a small carrot, a turnip, three cloves, half a blade of mace, a bay-leaf, and a sprig of thyme, and six of parsley tied in a bunch; add a gill of water, place over a sharp fire, stirring round occasionally, until the bottom of the stewpan is covered with whitish glaze, when fill up with three quarters of water, add a good teaspoonful of salt, and let simmer at the corner of the fire an hour and a half, keeping well skimmed, when pass it through a hair sieve into a basin; in another stewpan put a quarter of a pound of butter, with which mix six ounces of flour, stirring over the fire about three minutes, take off, keep stirring until partly cold, when add the stock all at once, continually stirring and boiling for a quarter of an hour; add half a pint of boiling milk, stir a few minutes longer, add a little chopped mushrooms if handy, pass through a hair sieve into a basin, until required for use, stirring it round occasionally until cold; the above being a simplified white sauce.

For a brown sauce use the same proportion as for the white, but having beef instead of veal for the stock, which must be made brown by placing four large onions cut in halves at the bottom of the stewpan, which must be well buttered, placing the meat over, standing upon the fire, and drawing down to a brown glaze before filling up, the thickening must also be made brown, by stirring a few minutes longer over the fire, and the milk omitted. Sometimes I make both stocks in the same stewpan, pass one half for the white sauce, and put a couple of burnt onions into the remainder, allowing it to simmer an hour longer, when pass and use for a brown sauce.

## TO MAKE A COLOURING OR BROWNING FROM SUGAR.

Put two ounces of whitepowdered sugar into a middling-sized stewpan, which place over a slow fire, when beginning to melt stir round with a wooden spoon until getting quite black, when set it in a moderate oven upon a trivet about twenty minutes, pour a pint of cold water over, let it dissolve, then cork it up in a bottle for use.



## THE DEADLY NIGHTSHADE.

The Deadly Nightshade (*Atropa Belladonna*) is indigenous to Great Britain, and usually met with in sheltered situations, hedges and waste ground, on a calcareous soil. The plant dies down to the ground every winter, shooting forth early in the spring, growing rapidly, and with great luxuriance; stems branching, and slightly downy, with large healthy-looking leaves, mostly two together of unequal size, ovate and acute, very different in appearance from all other kinds of Nightshade. The flowers which appear in June are imperfectly axillary, solitary, stalked, drooping, dark full purple in the border, paler downwards, about an inch long, and have no scent. The berries are of a rich purplish black, sweetish, about the size of a small cherry; are ripe in August, and of a *deadly narcotic quality*.

THE DEADLY NIGHTSHADE.—(*Atropa Belladonna*.)

*Atropus* was the name of one of the Fates in the Heathen Mythology, and as her duty was especially to cut short the thread of human life, this poisonous plant is very appropriately named after her; but why *belladonna*, which signifies a *beautiful lady*, was added, is not known.

The effect that is usually produced upon any one who has eaten of the berries is to dilate the pupil of the eye, in a most extraordinary manner; obscurity of vision, giddiness, delirium, and death, soon follow. It has been supposed that it was the juice of this plant which produced such remarkable and fatal effects on the Roman soldiers, during their retreat from the Parthians. Buchanan relates that the Scots mixed the juice with bread and drink, which, by their truce, they were to supply the Danes, which so intoxicated them, that the Scots killed the greatest part of Sweno's army while asleep. Shakspeare is supposed to allude to the plant under the name of the *insane root*, in *Macbeth*. And we have had many recent illustrations of its fatal effects upon persons who have ignorantly eaten of the berries. In August, 1844, several persons became alarmingly ill, and were with difficulty restored, one dying. In August of 1846, no less than three persons lost their lives from eating berries, purchased of a man in the streets; the man who sold them was taken up and tried for his life; but, by the advice of his counsel, he pleaded guilty to the minor offence of manslaughter, and received six months imprisonment.

The remedy in a case of poisoning, is to empty the stomach as quickly as possible. Domestic emetics are always at hand, in mustard and eat. A dessert spoonful of flour of mustard, or a table spoonful of salt, may be taken, stirred up in a tumbler full of warm water, tickling the throat with a feather dipped in oil; but the stomach-pump should always be preferred when it can be obtained. After which, drinks of vinegar and water, or lemon juice in green tea, should be given every ten minutes.

Our engraving, (Fig. 1) represents a flower cut open, showing the position of the stamens; fig 2, the calyx with the pistil; and fig. 3, a berry cut in half, to show its two cells, in each of which are several seeds.

## TO PRESERVE CUT FLOWERS.

The most simple rules are, not to put too many flowers in a glass, to change the water every morning, and to remove every decayed leaf as soon as it appears, cutting off the ends of the stems occasionally, as soon as they show any symptoms of decay. A more efficacious way, however, is to put nitrate of soda in the water; put about as much as can easily be taken up between the forefinger and thumb, into the glass every time the water is changed, will preserve cut flowers in all their beauty for above a fortnight. Nitrate of potash, (that is common saltpetre,) in powder, has nearly the same effect, but is not quite so efficacious.—*Mrs. Loudon*.

## TO HASTEN THE BLOWING OF FLOWERS.

The following liquid has been used with great success; this is, indeed, what is usually sold under the name of "liquid guano."—Sulphate or nitrate of ammonia, four ounces; nitrate of potash, two ounces; sugar, one ounce; hot water, one pint; dissolve, and keep it in a well-corked bottle. For use—Put eight or ten drops of this liquid into the water of a hyacinth glass or jar, for bulbous-rooted plants, changing the water every twelve or fourteen days. For flowering plants in pots, a few drops must be added to the water given to them: rain water is preferable for the purpose.

## SHERRY COBBLER.

(Canadian Receipt.)

Take a lump of ice; fix it at the edge of a board; rasp it with a tool made like a drawing-knife or carpenter's plane, set face upwards. Collect the fine raspings—the fine raspings, mind—in a capacious tumbler; pour thereon two glasses of good sherry, and a good spoonful of powdered white sugar, with a few small bits, not slices, of lemon, about as big as a gooseberry. Stir with a wooden macerator. Drink through a tube of macaroni or vermicelli.

## ADULTERATIONS OF BREAD AND FLOUR.

This is often carried to a fearful extent: Mr. Accum says—"The bakers' flour is very often made of the worst kinds of damaged foreign wheat, and other cereal grains mixed with them in grinding the wheat into flour. In this capital no fewer than six distinct kinds of wheaten flour are brought into the market. They are called fine flour, seconds, middlings, fine middlings, coarse middlings, and twenty-penny flour. Common garden beans and peas are also frequently ground up among the London bread flour. Caution.—If you purchase bread from the bakers, by all means buy the best. When you make it yourself, however, various additions may be made of a wholesome kind, that will render it cheaper. Thus, mashed potatoes, ground bran, potato farina, and several other articles may be added at pleasure. Mixing the flour up with a decoction of bran, pumpkins, Iceland moss, and some other similar substances has been recommended; and it is said that flour so mixed, will yield one quarter more bread than when water alone is used, and that it will keep good for some time.

## BUTTER.

Rancid butter is hutter in a state of decomposition, and capable of producing dangerous symptoms when eaten. Two cases of poisoning by bad butter are detailed in the Paris "Journal of Chemistry and Medicine," 1842. Rancid butter may be restored by melting it in a water-bath, with some coarsely powdered animal charcoal (which has been thoroughly freed from dust by sifting), and straining through clean flannel.

## TO KEEP CHEESE.

When a whole cheese is cut, and the consumption small, it is generally found to become unpleasantly dry and to lose flavour before it is consumed. This is best prevented by cutting a sufficient quantity for a few days' consumption from the cheese, and to place the remainder in a cool place, rather damp than dry, spreading a thin film of butter over the cut surface, and covering it with a cloth to keep off the dirt. This removes the objection existing in families against purchasing a whole cheese at a time. The common practice of buying cheese in small quantities should be avoided, as not only a higher price is paid for any given quality, but there is little likelihood of obtaining exactly the same flavour twice running. Should cheese become too dry to be agreeable, it may be used for stewing, or when grated cheese is wanted.

## CHOICE OF FISH.

In the choice of every kind of fish, stiffness, brightness of the eyes, and redness of the gills, may be regarded as invariable signs of freshness. A peculiar elasticity will also be perceived in fish recently caught; little or no permanent impression being made by the ordinary pressure of the fingers, from the flesh immediately rising when the pressure is withdrawn. Fresh fish also lie in a partly curled position, and never quite straight, as is the case when they have been kept for some time. Thickness and fleshiness are deemed marks of the good condition of all fish.

Of all the various substances used as aliments by man, fish are the most liable to run into a state of putrefaction, and should, therefore, be only eaten when perfectly fresh. Those that are whitest and most flaky when cooked, as whiting, cod, flounders, soles, haddock, turbot, &c., are the most easily digestible; and those abounding with oily matter, as salmon, eels, herrings, &c., are most nutritious, though more likely to offend the stomach. Salt water fish has been said to be more wholesome than river fish, but without sufficient reason. Salted fish is very hard of digestion unless well cooked. Acid sauces and pickles are the proper additions to fish, from their power of retarding the progress of putrefaction, and of correcting the tendency of large quantities of oil and hutter.

## PICKLES.

In the preparation of pickles, it is highly necessary to avoid employing metallic vessels; as both vinegar and salt corrodes brass, copper, lead, &c., and thus become poisonous. When it is necessary to heat or boil vinegar, it should be placed in a stone jar in a water bath, or on a stove. Glazed earthenware should be avoided either for making or keeping the pickle in, as the glazing usually contains lead. Pickles should be kept from the air as much as possible, and only touched with wooden spoons. They are also better preserved in small jars, or bottles, than large ones, as the more frequent opening of the latter exposes them too much. If a green colour be desired, it may be imparted by steeping vine leaves, or the leaves of parsley, or spinach, in the vinegar: a tea-spoonful of olive oil is frequently added to each bottle to keep the pickles white.

## TO PRESERVE CABBAGES.

Cut them so that they may have two inches stem left below the leaves; scoop out the pith as far down as a small knife will reach; then suspend them, by means of a cord, exactly perpendicular, but in an inverted position, and daily fill up the hollow part of the stem with clean water. It is stated, that by this method, cabbages, cauliflowers, brocoli, celery, &c., may be preserved for some time in a cool place; it affords an easy means of keeping a supply of green vegetables during the winter.

## DECANTERS.

There is often much difficulty experienced in cleaning decanters, especially after port wine has stood in them some time. The best way is to wash them out with a little pearl ash and warm water, adding 1 spoonful or two of fresh slaked lime, if necessary. To facilitate the action of the fluid against the sides of the glass, a few small cinders may be used. Another annoyance which frequently occurs, is that the stoppers of glass bottles and decanters become fixed in their places so firmly, that the exertion of sufficient force to remove them would endanger the vessel. In such cases, knocking the stopper gently with a piece of wood, first on one side, and then on the other, will generally loosen them. If this method does not succeed, a cloth wetted with hot water and applied to the neck, will generally expand the glass sufficiently to allow them to be easily withdrawn.

## CHINA

Is best cleaned, when very dirty, with finely powdered fuller's earth and warm water, afterwards rinsing it well in clean water. A little clean soft soap may be added to the water instead of fuller's earth. The same plan is recommended for cleaning glass.



# THE ILLUSTRATED LONDON ALMANACK FOR 1847.

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## CONSULATE AND PASSPORT OFFICES.

AMERICA.—No passport required.  
AUSTRIA.—Embassy, 7, Chandos-street, Cavendish-square, between 12 and 2.  
BAVARIA.—The Minister, 3 Hill-street, Berkeley-square, when personally known to him; or at the Consul Office.  
BELGIUM.—Legation, 9 A, Weymouth-street, Portland-place, between 11 and 3; delivered next day between 11 and 2, gratis; at the Consul's office, between 10 and 4—fee 5s.  
BRAZIL.—Legation, 10, York-place, Portman-square, between 12 and 2, gratis.  
DENMARK.—6, Warrford-court, between 10 and 4—fee 10s. 6d.  
FRANCE.—French passport-office, 6, Poland-street, Oxford-street, from 11 to 5; delivered next day between 1 and 3, on personal application, gratis; also at the Consul's office, between 12 and 4—fee 10s.  
GREECE.—25, Finsbury-circus, between 11 and 4—fee 2s. 6d.  
HANOVER.—Secretary to Embassy, 4, Hobart-place, Eaton-square, between 10 and 3; and at the Consul's office, between 10 and 3, gratis.  
MEXICO.—Legation, 7, Sussex-place, Regent's-park, between 12 and 4; delivered following day.  
NAPLES AND SICILY.—Passport-office, 2, Old Cavendish-street, Mondays and Thursdays, between 10 and 12; delivered following day between 2 and 3, gratis; for persons going by sea, Consul's office, between 10 and 12—fee 10s.  
PORTUGAL.—Embassy, 57, Upper Seymour-street, Bryanstone-square, between 11 and 4, delivered following day; also at Consul's office.  
PRUSSIA.—106, Fenchurch-street, between 10 and 6—fee 7s.  
RUSSIA.—9, Winchester-buildings, between 10 and 4; delivered following day—fee 6s. 4d.  
SPAIN.—Visas to Foreign Office. Passports to British subjects, at the Legation, between 11 and 3, gratis; passports to natives at the same time and place.  
SWEDEN AND NORWAY.—Embassy, 66, Mount-street, Berkeley-square, between 9 and 1; delivered following day—fee 5s.  
TURKEY.—Embassy, 1, Bryanstone-square, between 12 and 3 every day, except Friday and Sunday, gratis.  
TUSCANY.—15, Angel-court, Throgmorton-street, between 10 and 4, gratis.

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## CONTENTS OF THE ILLUSTRATED LONDON ALMANACK, 1846.

The First Page of each month is headed by a beautiful allegorical design by KENNY MEADOWS, and engraved by LINTON.  
The Second Page of each month is devoted to Astronomical Appearances and Occurrences. It forms a Popular Treatise on the Astronomy of the Current Year, with much that is applicable at all times; and, therefore, it has a permanent interest. The whole of these calculations were performed under the immediate superintendence of JAMES GLAISHER, Esq., F.R.A.S., and of the Royal Observatory, Greenwich.  
The Third Page of each month is headed by a graceful illustration of its Sports, Pastimes, and Pursuits; accompanied by Notes upon its Feasts and Fasts, and brief Notices of the Festal Observances by which the several Holidays have been transmitted through ages unto

our own time. Throughout the Illustrations, the Artist has associated the Ages of Man with the Natural Appearances of the Year in each Month; the epigraphs to each being quoted from a quaint old poem—"The Age and Life of Man"; a Short Description of the Nature, Rise, and Fall, according to the Twelve Mouths of the Year.  
The Fourth Page of each month is devoted to its Natural History; which needs no explanation, further than that, in writing the article, the best authorities have been consulted. This department has been written by Mr. GLAISHER. The whole of the drawings in this and the Astronomical section, have been made by Mrs. GLAISHER.

### MISCELLANEOUS.

STAMPS AND TAXES.—Receipts and Bills; Bonds and Mortgages, Probates of Wills; Legacy Duties; Licenses; Duties on Dogs, Windows, Carriages and Horses; Penalties under the Stamp Act.  
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THE  
ILLUSTRATED  
LONDON  
ALMANACK.



LONDON.  
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## INTRODUCTION.

THE success which has attended the publication of the three preceding ILLUSTRATED LONDON ALMANACKS, has induced the Proprietors to spare no expense or trouble in the forming of this, the Fourth ILLUSTRATED LONDON ALMANACK.

This work has been written not only with the view of setting before the Public the Yearly Calendrical and Yearly Astronomical Phenomena, in the most popular and yet accurate form possible; but, also, with the view of the whole forming a connected series, dependant upon each other, but yet that each volume shall be complete in itself for the year of its publication. This will be found to be particularly the case in the Astronomical Department; for instance, from year to year, the path in the Heavens of the Planets may be traced, in the same manner as they may be traced from month to month in the same year's Almanack. The work, therefore, differs in this respect from all other Almanacks, that, at the close of the year, it is not to be laid by as useless, but it will serve for a constant book of reference for the places and the appearances of the Planets, &c.

THE CALENDARIAL AND ASTRONOMICAL DEPARTMENTS of this Almanack have been entirely under the superintendence of JAMES GLAISHER, Esq., F.R.A.S., and of the Royal Observatory, Greenwich, who has also furnished the following explanatory remarks relative to the contents of this Almanack.

CALENDARIAL PAGES.—Times of the Sun and Moon, and Planets Rising and Setting. In these calculations a correction of 34' for refraction has been taken into account for the Sun and the Planets, and an additional correction of 57' for parallax for the Moon; and the calculations are adopted for London. An auxiliary table was printed in the Almanack for 1847, page 54, to enable persons to deduce the time of Sun Rising or Setting at any place in the British Isles. The numbers in the same table are applicable to the times of rising in this Almanack, and to be used in the same way as is there explained.

The times of Moon Rising will be nearly the same at every place in the British Isles, when the Moon is on the Equator, as the times given in the Almanack. At times, when the Moon is situated North of the Equator, she will rise earlier, and set later at all places North of London; and she will rise later and set earlier at all places South of London. At times when the Moon is situated South of the Equator, she rises later and sets earlier at all places North of London, and she rises earlier and sets later at all places South of London, than the times at London. The times of the Moon's Southing, or being on the Meridian, have been calculated for London, and they are true for all places having the same longitude; or for all places situated due North or South of London. To all places East of this N. and S. line, the times are somewhat later than those given in the Almanack.

DURATION OF MOONLIGHT.—To enable persons by a cursory glance to see the hours of Moonlight as well as to observe the comparative degrees of it, illustrated or tinted columns are given. At times, when the Moon is below the horizon, the hour space is dark, and it is light when she is above the horizon; and these are sufficiently near for the whole country.

EQUATION OF TIME.—This was fully explained in the introduction to last year's Almanack, with examples of its application. Its application, however, will be readily seen by referring to the article "Sun" in each month of this year, whose times of southing or being on the Meridian in common clock time are given each month.

All the times throughout this Almanack are to be understood as London Mean-time (common Clock-time), or, in other words, the times of the several phenomena are the same as those which will be shown by a good watch at their occurrence.

### ASTRONOMICAL PHENOMENA DURING THE MONTH.

SUN.—The times of entrance into the different signs of the Zodiac are given; his distance from the Earth in miles; the points of the horizon at which he rises and sets at London, and his time of southing are given each month.

MOON.—The constellation in which she is situated every day; the times when she is on the Equator or N. or S. of it are given; the heights in degrees above the horizon when she is on the Meridian on those days in each month when she will be the biggest or the lowest, and when she is near the several Planets in her monthly course are also noted.

THE PLANETS.—The constellation in which each is situated; the time of rising and setting; points in the horizon at which they rise or set, and all the interesting phenomena of the year connected with them are stated; as well as their paths at those times when they are situated near conspicuous stars, or near other Planets, are laid down in diagrams showing their paths for the month, so that the gradual approach of a Planet to, or receding from, a Star or another Planet, can be seen for the whole month. At times when it seemed desirable, the appearances of the Planets have been given; and in fact all the information relative to them which our space affords, will be found in each month.

ECLIPSES.—In the year 1848, there will be four Eclipses of the Sun, two of the Moon, and a transit of Mercury over the Sun's disc. (See March, April, August, September, and November.)

TWILIGHT AND PHASES OF THE MOON.—(See the Introduction to the ILLUSTRATED LONDON ALMANACK for 1847.)

THE WEATHER.—The article on the weather, (page 52), has been written upon the averages as calculated from the observations taken at the Royal Observatory at Greenwich, every two hours, night and day, for four years. They will be found to apply to a large circle around London, and indeed will not differ much, except at places North of latitude 54°, and at those places situated near the sea coast.

### LAW TERMS, 1848.

As Settled by Statutes 2, George IV., 1, William IV., Cap. 70, S. 6 (passed July, 23rd, 1830). 1, William IV., Cap. 3, S. 2 (passed, December 23rd, 1830).

Hilary Term .. ..	Begins January 11	Ends January 31
Easter Term .. ..	April 15	May 12
Trinity Term .. ..	May 26	June 16
Michaelmas .. ..	Nov. 2	Nov. 25

### UNIVERSITY TERMS, 1848.

#### OXFORD.

TERMS	BEGINS	ENDS
Lent .. ..	January 14	April 15
Easter .. ..	May 3	June 10
Trinity .. ..	June 14	July 8
Michaelmas .. ..	October 10	December 18

The Act, July 4

#### CAMBRIDGE.

TERMS	BEGINS	DIVIDES	ENDS
Lent .. ..	Jan. 13	Feb. 28, Noon	April 14
Easter .. ..	May 3	June 4, Midnight	July 7
Michaelmas .. ..	Oct. 10	Nov. 12, Midnight	Dec. 16

The Commencement, July

### GENERAL POSTAL REGULATIONS, &c.

#### RATES OF POSTAGE.

All letters from one part of Great Britain to another (including the Local Penny Posts and the London Twopenny Post) are charged, if prepaid, and not exceeding half an ounce .. .. 1d.  
Exceeding half an ounce, and not exceeding 1 ounce .. .. 2d.  
and so on at the rate of 2d. for every additional ounce or fraction of an ounce.  
Unpaid and unstamped letters are charged double postage on delivery.

#### HOURS OF POSTING FOR THE EVENING MAILS.

The receiving houses close at 5 30 P.M. Letters are received for the evening's dispatch at the Branch Post-offices at Caring-cross, Old Cavendish-street, and 105 Blackman-street, Southwark, until 6 P.M., and with a fee of one penny, which must be paid by affixing a stamp to the letter, until 6 45 P.M. At the Branch Post-office in Lombard-street, the box remains open without additional fee until 6 P.M., and until 7 P.M., by affixing a penny stamp. At the General Post-office in St. Martin's-le-grand until 6, free, and 7 by payment of the extra charge as at Lombard-street. From 7 to half-past 7 P.M., letters may be posted there upon payment of a fee of sixpence each, which must, as well as the postage, be prepaid. Letters intended to pass by outward mails to foreign parts must be posted at the above hours.

N.B. Newspapers for the evening mails must be put into the receiving houses before 5 P.M., the Branch offices before 5 30, or General Post-office before 6 P.M. From 6 P.M. to 7 30, on payment of one halfpenny late fee.

MORNING MAILS are forwarded to most of the principal towns in England and Wales, and to all parts of Ireland and Scotland, for which the letter boxes at the Receiving Houses will be open till 7 A.M. for newspapers, and 8 A.M. for letters; and those at the Branch Offices, Caring-cross, Old Cavendish-street, and the Borough, for newspapers until half-past 7 A.M., and for letters until 8 A.M. At the General Post Office and the Branch Office in Lombard-street, the boxes will close for newspapers at a quarter before 8 A.M., and for letters at half-past 8 A.M. British and Colonial papers between British Colonies, without passing through

the United Kingdom to be free; except that 1d. may be allowed as a gratuity to the master of the vessel conveying them.

Newspapers, British, Foreign, or Colonial, passing between British or Colonial and Foreign Ports, and through the British post, to pay 2d.; if not through the British post, 1d.

The new postage stamps intended principally for the pre-payment of foreign letters have been issued. They are of the value of one shilling each, the colour being green, and the form octagonal, to distinguish them easily from the smaller denomination of postage stamps at present in use. These stamps may be used for inland as well as foreign postage, but they are chiefly intended for the postage of letters to the United States, India, China, the West Indies, New South Wales, New Zealand, and other places to which the postage is one shilling.

The New Post-office Act, of August 1st, 1847, contains 22 sections. By the 1st section, so much of the Act 3 and 4 Vict., c. 96, as enacts that no letter exceeding six ounces weight shall be sent by post is repealed, and that for the future, packages which in length, breadth, or width, exceed twenty-four inches, shall not be forwarded by the post between any places within the United Kingdom, excepting, however, petitions or addresses to her Majesty, or petitions to either House of Parliament forwarded to any Member of either House, or to printed votes or proceedings of Parliament, or to letters to or from any Government offices or departments. The following notice has also been issued. The Postmaster-General of the United States having given a notice for determining the agreement under which the correspondence between Great Britain and Canada has been conveyed, in closed mails, through the territories of the United States, as well as all other agreements subsisting between the Post-offices of the two countries, the mails to and from Canada will henceforth be landed and embarked at Halifax, Nova Scotia, instead of Boston, as heretofore. All letters and newspapers, therefore, addressed to Canada, will in future be forwarded by the way of Halifax, N.S., unless specially directed to be sent by some other route; and as the arrangement under which United States postage has hitherto been collected in Canada is also suspended by the notice alluded to, all letters for Canada, which the writers desire to have forwarded by the way of the United States, should be addressed to the care of parties in the United States, or they will otherwise be detained for the postage due for their transit through the American territory. The postage on letters to and from Canada, forwarded *via* Halifax, N.S., will be 1s. 2d. the half ounce, as at present, but no charge will be made on newspapers, either in the United Kingdom or in Canada. The third provision is in the following words, and by it considerable power is given to alter the present system:—"And be it enacted that the Postmaster-General may collect and receive the foreign and colonial postage charged or chargeable on any letters sent by the post; and may also, with the consent of the Commissioners of her Majesty's Treasury require the postage (British, colonial, or foreign) of any letters sent by the post to be prepaid, either in money or in stamps (as he may think fit), on the same being put into the post-office; and he may also, with such consent, abolish or restrict the prepayment in money of postage on letters sent by the post either altogether or on certain letters, and may refuse to receive or send by the post any letters tendered contrary to any regulations made under this enactment." By the next section, in all cases in which the British postage chargeable on any letter sent by the post shall exceed the sum of one penny, it shall be lawful for the Commissioners of her Majesty's Treasury, by warrant, to reduce such postage to any rate of postage they may from time to time think fit. With respect to the privilege given by the recited act to seamen and soldiers, it is provided that it shall extend to letters liable to foreign rates of postage, subject to the payment of the foreign postage, if any be chargeable thereon.

It is gratifying to find that the great national boon of cheap postage has proved eminently successful. The revenue derivable from this branch of the public service has increased £5000 during the past quarter, and £57,000 on the year ending October 10th. The total net income of the Post-office already yields £859,000 per annum. And as the population increases—as education is more widely and universally disseminated—the Post-office revenue will continue to increase until it yields a larger sum than it did before the adoption of Mr. Rowland Hill's system.



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## ON THE CALENDAR.

### THE PRINCIPAL ARTICLES OF THE CALENDAR, FOR THE YEAR OF OUR LORD 1848.

	Gregorian or New Calendar.	Julian or Old Calendar.
Dominical Letters	B A	D C
Golden Number	6	6
Roman Indiction	6	6
Solar Cycle	9	9
Epact	25	6

(For remarks upon these several articles, see the Almanack of last year.)

### CORRESPONDENCE OF THE YEAR 1848 WITH ANCIENT ERAS.

The year of the Julian Period ..	6561	From the foundation of Rome ..	2601
From the first Olympiad ..	2624	From the epoch of Neboanasser ..	2595

### FIXED AND MOVEABLE FESTIVALS, ANNIVERSARIES, &c.

Epiphany ..	Jan. 6	Ascension Day—Holy Thursday	June 1
Martyrdom of King Charles I. ..	30	Pentecost—Whit Sunday ..	June 11
Septuagesima Sunday ..	Feb. 20	Trinity Sunday ..	18
St. David ..	March 1	Accession of Queen Victoria ..	20
Quinquagesima—Shrove Sun. ..	5	Proclamation ..	21
Ash Wednesday ..	8	Corpus Christi ..	22
Quadragesima—1st Sunday ..	12	St. John Baptist—Midsum- mer Day ..	24
in Lent ..	12	Birth of Dowager Queen ..	Aug. 13
St. Patrick ..	17	Adelaide ..	25
Annunciation—Lady Day ..	25	Birth of Prince Albert ..	26
Palm Sunday ..	April 16	St. Michael—Michaelmas Day	Sep. 29
Good Friday ..	21	Gunpowder Plot ..	Nov. 5
EASTER SUNDAY ..	23	Birth of Prince of Wales ..	9
St. George ..	23	St. Andrew ..	30
Low Sunday ..	30	1st Sunday in Advent ..	Dec. 3
Birth of Queen Victoria ..	May 24	St. Thomas ..	21
Rogation Sunday ..	28	Christmas Day ..	25
Restoration of King Chas. II. ..	29		

### CALENDAR OF THE JEWS FOR THE YEAR 1848.

5608	1847	NEW MOONS AND FEASTS.
Tebeth ..	1 December ..	8 Rosh Hodesh or New Moon
" ..	10 " ..	17 Fast: Siege of Jerusalem
Tebeth ..	1 January ..	6
Adar ..	1 February ..	5
Veadar ..	14 March ..	18 Little Parim: Feast of Haman
" ..	11 " ..	16 Fast of Esther
" ..	14 " ..	19 Feast of Purim
" ..	15 " ..	20 Schschan Purim
Nisan ..	1 April ..	4 Passover begins
" ..	15 " ..	19 Second day
" ..	21 " ..	24 Seventh day
" ..	22 " ..	25 Passover ends
Ijar ..	1 May ..	4
" ..	18 " ..	21 Lag Beomer
Sivau ..	1 June ..	2
" ..	6 " ..	7 Pentecost Holidays, the Feast of Weeks
" ..	7 " ..	8 Second day
Tamuz ..	1 July ..	2
" ..	17 " ..	18 Fast: Seizure of the Temple by Titus
Ab ..	1 " ..	31
Elul ..	1 August ..	8 Fast: Destruction of the Temple
" ..	9 " ..	30
" ..	7 September ..	8 Dedication of the Walls by Nehemiah
" ..	17 " ..	15 Expulsion of the Greeks
Tisri ..	1 " ..	23 Feast of the New Year
" ..	2 " ..	29 Second day
" ..	4 October ..	1 Fast: Gedaliah
" ..	7 " ..	4 Fast for the Worship of the Golden Calf
" ..	10 " ..	7 Fast: Day of Atonement
" ..	15 " ..	12 Feast of Tabernacles
" ..	16 " ..	13 Second day
" ..	21 " ..	18 Feast of Branches
" ..	22 " ..	19 End of the Feast of Tabernacles
" ..	23 " ..	20 Feast of the Law
Marchesvan ..	1 " ..	23
" ..	6 November ..	2 Fast: for the Destruction of Jerusalem
Kislev ..	1 " ..	26
" ..	25 December ..	20 Feast of the Dedication of the Temple
Tebeth ..	1 " ..	26

The Jewish Year generally contains 354 days, or 12 Lunations of the Moon, but, in a cycle of 19 years, an interceding month (Veadar) is 7 times introduced, for the purpose of rendering the average duration of the year quite or nearly correct.

### THE MONTHS OF THE TURKISH CALENDAR.

Hegiri: 1264,	Moharrem 1	(New Year)	falls on December 9, 1847.
" ..	Safar 1	" ..	January 8, 1848.
" ..	Rebi-el-Awwel 1	" ..	February 6, ..
" ..	Rebi-el-Acher 1	" ..	March 7, ..
" ..	Dschemadi el-Awwel 1	" ..	April 5, ..
" ..	Dschemadi el-Acher 1	" ..	May 5, ..
" ..	Redscheb 1	" ..	June 3, ..
" ..	Schaban 1	" ..	July 3, ..
" ..	Ramadan 1	(Month of Abstinence observed by the Turks)	August 1, ..
" ..	Schewal 1	" ..	August 31, ..
" ..	Dsu'l-Kade 1	" ..	September 29, ..
" ..	Dsu'l-hedsché 1	" ..	October 29, ..
Hegiri: 1265,	Moharrem 1	" ..	November 27, ..
" ..	Safar 1	" ..	December 27, ..

The Mahometan Year is purely Lunar; it consists of 12 synodical periods of the Moon (or 354 days, 19 times, and of 355 days 11 times,) in a period of 30

years. The average length of this year is therefore 354 days 8h. 48m., which differs half-a-minute only from the truth; a degree of exactness that only could have been obtained by a long series of observations.

No allowance, however, is made for the excess of 11 days in the length of a tropical year, over the term of 12 revolutions of the Moon; it is evident that in about 33 years, the above months will correspond to every part of the Gregorian Year.

The Mahometan Era dates from the Flight of Mahomet to Medina, July 16th, A.D., 622.

## ASTRONOMICAL SYMBOLS AND ABBREVIATIONS EXPLAINED.

☉ The Sun	♃ Jupiter	♈ Hours
☾ The Moon	♄ Saturn	♉ Minutes of Time
☿ Mercury	♅ Uranus	♊ Seconds of Time
♀ Venus	☌ Conjunction	♋ Aries
♁ or ☿ The Earth	☐ Quadrature	♌ Taurus
♂ Mars	☌ Opposition	♍ Gemini
♁ Vesta	♁ Ascending Node	♎ Cancer
♂ Juno	♁ Descending Node	♏ Leo
♁ Pallas	N. North	♐ Virgo
♁ Ceres	E. East	♑ Libra
♁ Neptune	S. South	♒ Scorpio
♁ Hebe	W. West	♓ Sagittarius
♁ Iris	° Degrees	♈ Capricornus
♁ Astrea	' Minutes of Arc	♐ Aquarius
	" Seconds of Arc	♑ Pisces

## ASTRONOMICAL TERMS EXPLAINED.

The *Equinoctial* is a great circle in the Heavens, equidistant from both poles. The *Ecliptic* is that circle in the Heavens, in which the Earth performs its annual revolution round the Sun; half of it being on the North side, and half of it being on the South side of the equinoctial: it is supposed to be divided into twelve equal parts, called *signs*, each of which has an extent of 30°, and each of them is represented by a symbol as shown above.

The *Equinoctial Points* are those two opposite points in the Heavens, where the Ecliptic and the Equinoctial cross each other.

The *Precession of the Equinoxes* is a change in the position of the Equinoctial points, which move backward about 50 seconds of arc every year.

The *Zenith* is that point in the Heavens which is situated directly over the head of the spectator.

The *Nadir* is that point of the Heavens directly opposite to the Zenith, or under the feet of the spectator.

The *Zodiac* is a zone of about 16° in breadth, extending all round the Heavens, and in the middle of which is the Ecliptic. This zone includes the orbits of all the known Planets except some of the smaller ones.

*Meridians* are circles in the Heavens, perpendicular to the Equinoctial, and passing through its poles; and which, therefore, pass through the true N., and S. parts of the Horizon and through the Zenith.

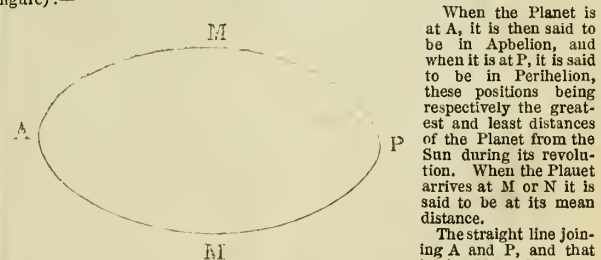
The *Horizon* is that circle which is equally distant from the Zenith and the Nadir.

*Vertical Circles* are those which pass through the Zenith and the Nadir, and are perpendicular to the horizon.

The *Altitude of a Celestial Body* is its height above the horizon, expressed in degrees, reckoned on the vertical circle which passes through it.

The *Meridian Altitude* is the altitude when it is on the meridian.

The *Orbit of a Planet or Comet*, is the path in which it performs its revolution round the Sun. The orbits of all the Planets are elliptical or oval, with the Sun situated in one of the foci, but less elliptical than is shown in the following figure):—



When the Planet is at A, it is then said to be in Aphelion, and when it is at P, it is said to be in Perihelion, these positions being respectively the greatest and least distances of the Planet from the Sun during its revolution. When the Planet arrives at M or N it is said to be at its mean distance.

The straight line joining A and P, and that joining M and N, are respectively the greater or the lesser axis of the orbit; the former is called the line of the apses. The Sun occupies that foci of the ellipse which is nearest to P.

Whilst the Planet is performing its revolution round the Sun, it has also a motion round an imaginary line passing through its centre. This line is called its *axis*. The extremities of this line are called the *Poles*; and that, which, if continued, would meet the northern Heavens, is called the North Pole; and the other the South Pole.

The *Longitude* of celestial bodies is reckoned eastward from the vernal equinox on the Ecliptic.

The *Right Ascension* of celestial bodies is reckoned eastward from the vernal equinox on the Equinoctial.

The *Latitude* of a celestial body is reckoned from the Ecliptic North or South.

The *Declination* of a celestial body is reckoned from the Equinoctial, North or South.

The *Elongation* of a Planet is its distance from the Sun, expressed in degrees, as seen from the Earth.

The *Opposition* of two celestial objects takes place when they are in opposite parts of the Heavens, as seen from the Earth, and their *Conjunction* when they are in the same parts as seen from the Earth.

The *Direct Motion* of a Planet is when its motion is in the order of the signs as passing successively from Aries to Taurus, &c. The *Retrograde* motion is when it is moving in the contrary direction.

An *Occultation* by the Moon of a Star or Planet, takes place when the Moon is between that object and the Earth.

The *Disc* of the Sun or Planet, is its whole orb, or its face. When any Planet passes across the Sun it is said to transit his disc, as Mercury will do on November 9, of this year.

*Penumbra*, is a faint shadow which borders the dark shadow produced by an eclipse.

*Digit* is the twelfth part of the Sun or Moon's diameter.





M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS &c.	SUN.			MOON.			DURATION OF MOONLIGHT			HIGH WATER AT LONDON BRIDGE.		EQUA- TION OF TIME.	Day of Year	
			Rises	Sets.	Declina- tion South.	Rises. Morning.	Souths Morning.	Sets. Afternoon	Before Sunrise. O'Clock. 2h. 4h. 6h.	Moon's Age.	After Sunset O'Clock. 6h. 8h. 10h.	Morning	Afternoon			
1	S	Circumcision	8. 8	4. 0	23 4	2. 45	7. 53	0. 54		25			9. 43	10. 17	3. 36	1
2	S	2ND. SUNDAY AFT.	8. 8	4. 1	22 59	3. 47	8. 39	1. 26		26			10. 52	11. 25	4. 4	2
3	M	Christmas. The early Christians celebrated the Feast of the Nativity, for 2 days, beginning on Christmas Day, which was called the greater Epiphany, and Twelfth Day the lesser Epiphany	8. 8	4. 2	22 53	4. 48	9. 27	2. 2		27			11. 55	No tide	4. 33	3
4	Tu		8. 8	4. 3	22 47	5. 48	10. 18	2. 47		28			0. 23	0. 45	5. 0	4
5	W		8. 7	4. 3	22 41	6. 43	11. 9	2. 38		29			1. 8	1. 30	5. 28	5
6	Th	Epiphany	8. 7	4. 4	22 34	7. 34	Afternoon	4. 37		30			1. 50	2. 10	5. 55	6
7	F	♈ Aries souths at 6h. 54m. P.M.	8. 7	4. 6	22 27	8. 16	0. 57	5. 43		1			2. 31	2. 50	6. 21	7
8	S	St. Lucian	8. 6	4. 7	22 19	8. 55	1. 51	6. 54		2			3. 9	3. 30	6. 47	8
9	S	1st S. AFT. EPIPH.	8. 6	4. 9	22 11	9. 21	2. 44	8. 9		3			3. 49	4. 10	7. 13	9
10	M	Plough Monday	8. 6	4. 10	22 3	9. 59	3. 36	9. 25		4			4. 30	4. 50	7. 38	10
11	Tu	Hilary Term begs.	8. 5	4. 11	21 54	10. 26	4. 27	10. 40		5			5. 10	5. 35	8. 2	11
12	W	[Term begins	8. 5	4. 13	21 44	10. 54	5. 19	11. 56		6			5. 55	6. 20	8. 26	12
13	Th	St. Hilary. Camb.	8. 4	4. 14	21 35	11. 23	6. 11	Morning.		7			6. 43	7. 10	8. 49	13
14	F	Ox. Term begins	8. 3	4. 16	21 24	11. 53	7. 4	1. 12		8			7. 35	8. 10	9. 11	14
15	S	Aldebaran souths at 8h. 50m. P.M.	8. 2	4. 18	21 14	Afternoon	7. 59	2. 26		9			8. 45	9. 20	9. 33	15
16	S	2d S. AFT. EPIPH.	8. 1	4. 19	21 3	1. 11	8. 55	3. 38		10			9. 55	10. 35	9. 54	16
17	M	Capella souths 9h. 20m. P.M.	8. 0	4. 21	20 51	1. 59	9. 51	4. 45		11			11. 15	11. 55	10. 15	17
18	Tu	Prisca. Old. T. Day	7. 59	4. 22	20 39	2. 55	10. 47	5. 44		12			No tide	0. 25	10. 34	18
19	W	Rigel souths 9h. 14m. P.M.	7. 58	4. 24	20 27	3. 55	11. 41	6. 36		13			0. 53	1. 20	10. 53	19
20	Th	Fabian	7. 58	4. 25	20 15	5. 0	Morning.	7. 21		14			1. 47	2. 10	11. 11	20
21	F	Agnes	7. 57	4. 27	20 2	6. 8	0. 33	7. 57		15			2. 33	2. 55	11. 29	21
22	S	Vincent	7. 56	4. 29	19 48	7. 15	1. 23	8. 28		16			3. 15	3. 35	11. 46	22
23	S	3d S. AFT. EPIPH.	7. 54	4. 31	19 34	8. 19	2. 10	8. 56		17			3. 50	4. 10	12. 2	23
24	M	Pitt died 1806	7. 53	4. 33	19 20	9. 21	2. 55	9. 21		18			4. 30	4. 45	12. 17	24
25	Tu	Conversi. St. Paul	7. 51	4. 35	19 6	10. 26	3. 38	9. 44		19			5. 5	5. 20	12. 31	25
26	W	Beta Tauri souths 8h. 55m. P.M.	7. 50	4. 37	18 51	11. 29	4. 21	10. 7		20			5. 40	5. 55	12. 45	26
27	Th	Sirius souths 10. 13m. P.M.	7. 48	4. 39	18 36	Morning	5. 4	10. 31		21			6. 10	6. 30	12. 58	27
28	F	Procyon souths 11h. 1m. P.M.	7. 47	4. 40	18 20	0. 30	5. 47	10. 56		22			6. 50	7. 10	13. 10	28
29	S	[K. Charlesmart.	7. 46	4. 41	18 5	1. 32	6. 32	11. 26		23			7. 35	8. 0	13. 21	29
30	S	4th. S. AFT. EPIPH.	7. 45	4. 43	17 49	2. 32	7. 18	11. 59		24			8. 30	9. 10	13. 31	30
31	M	Hilary Term ends	7. 44	4. 45	17 32	3. 32	8. 7	Afternoon		25			9. 45	10. 25	13. 41	31



## THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## JANUARY.

THE SUN is in the sign Capricornus (the Goat) till the 20th; on which day at 8h. 41m. P.M., he enters the sign Aquarius (the Water-bearer.)

On the 1st at noon he is 93,410,000 miles from the earth. He rises on the 1st at 3° S. of the S.E. by E.; on the 15th, at the S.E. by E., and on the last day nearly midway between E.S.E. and S.E. by E. He sets on the same day at 3° S. of S.W. by W.; at the S.W. by W.; and midway between W.S.W. and the S.W. by W. points of the horizon. He souths on the 1st at 3m. 36s.; on the 15th, at 9m. 33s., and on the last day at 13m. 41s. after noon, (common clock time) at the altitude of 15° on the 1st; of 17° on the 15th; and of 21° on the last day.

The Moon rises between midnight, and before noon, from the 1st to the 14th, and between noon and midnight after the 16th. She sets afternoon and before midnight, from the 1st to the 12th; and after midnight, and before noon, from the 14th to the end of the month. The Moon is in the constellation Libra, on the 1st and 2nd; in that of Ophiuchus, on the 3rd and 4th; her motion is on the boundary of those of Sagittarius and Aquila, on the 5th and 6th; in that of Aquarius, from the 7th to the 9th; in Pisces, on the 10th; Cetus, on the 11th and 12th; Pisces, on the 13th; Cetus again on the 14th; Taurus, on the 15th, 16th, and 17th; Gemini, on the 18th and 19th; Cancer, on the 20th; Leo, on the 21st, 22nd, and 23rd; Virgo, on the 24th, 25th, 26th, and 27th; Libra, on the 28th and 29th; and Ophiuchus, on the 30th and 31st.

On the 1st she is situated south of the Equator, and is moving southward till the 4th day; at this time she attains her lowest point, and is 20° above the horizon when she souths; after this time she is moving N.; is on the Equator on the 2nd, and attains her greatest altitude on the 18th, at which time she is 56° above the horizon when she souths.

She is New on the 6th and Full on the 20th, but without an eclipse at both times. On the 2nd day she is near Venus; on the 5th, near Mercury; on the 10th, near Saturn; on the 12th, near Uranus; on the 14th, near Mars; and on the 19th, near Jupiter.

On the 16th she is near the Pleiades, and on this day the bright star Aldebaran is occulted by her. (See below.)

MERCURY is in the constellation of Sagittarius till the 22nd, and in that of Capricornus from the 23rd.

He rises on the 1st, at 7h. 0m. A.M.; on the 4th, at 7h. 11m. A.M.; on the 7th, at 7h. 21m. A.M.; on the 10th, at 7h. 30m. A.M.; on the 15th, at 7h. 43m. A.M.; and on the 22nd, at 7h. 55m.; these times precede those of the Sun rising on the 1st by 1h. 8m.; on the 4th, by 0h. 57m.; the 7th, by 0h. 46m.; the 10th, by 0h. 36m.; the 15th, by 0h. 18m.; and on the 22nd, by 0h. 1m. From the 23rd to the end of the month, the Sun rises before the Planet, and on the 31st day they set together; therefore, during the first 10 days of this month, before Sun rise, the Planet is rather favourably situated for observation, during which time he rises near E.S.E.

He is moving eastward among the stars during the month, and is at his greatest elongation on the 25th day, being 18° East, at which time his appearance is that of a half circle. At the beginning of the month his appearance is that of a circle, as is shown in the annexed diagram, exhibiting the relative appearances of the Planets at the beginning of the year.

VENUS will be in the constellation of Libra till the 6th, in that of Scorpio from the 7th to the 9th, and in that of Capricornus from the 9th to the end of the month.

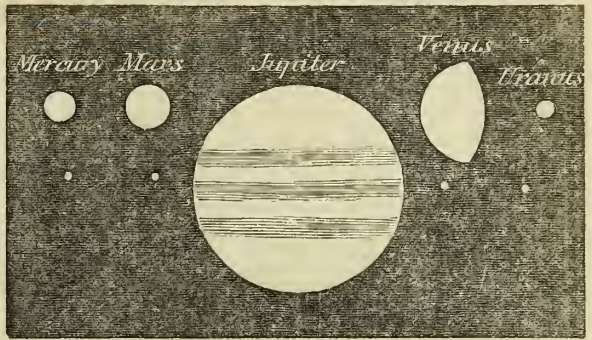
She is a morning star, and rises on the 1st at 4h. 10m. A.M., near the E.S.E.; on the 15th, at 4h. 41m. A.M., near the S.E. by E.; and on the 31st, at 5h. 11m. A.M., at the S.E. by E. point of the horizon. She souths at 8h. 50m. A.M., on the 1st; at 9h. A.M., on the 15th; and at 9h. 16m. A.M., on the 31st. Her altitude above the south horizon, at the time of southing, is 22° on the 1st, decreasing to 16° on the last day. She will be moving eastward among the stars during the whole year. She is near the Moon on the 2nd, and on the 7th, before Sunrise, she is within 2° of Beta Scorpii, the star being the higher of the two objects.

MARS will be in the constellation Aries throughout the month. He is an evening star, and sets on the 1st near W. by N., at 2h. 53m. A.M.; on the 15th, midway between the W. by N., and W.N.W., at 2h. 28m. A.M.; and on the 31st, near W.N.W., at 2h. 5m. A.M. He souths at 7h. 30m. P.M. on the 1st; at 6h. 55m. P.M., on the 15th; and at 6h. 19m. P.M., on the 31st; at the altitude of 53° on the 1st; of 55° on the 15th, and of 57° on the last day. He is moving eastward among the stars during the whole year. He is near the Moon on the 14th, and he will not be near any bright star or Planet during the month.

JUPITER will be in the constellation Gemini throughout the month.

He is visible throughout the night; he rises at the N.E. by E. on every day; at the former part of the month at about the time of Sun setting; and sets at the N.W. by W., at about the time of Sun rising; towards the end of the month he

## RELATIVE APPEARANCE OF THE PLANETS IN JANUARY, 1848.



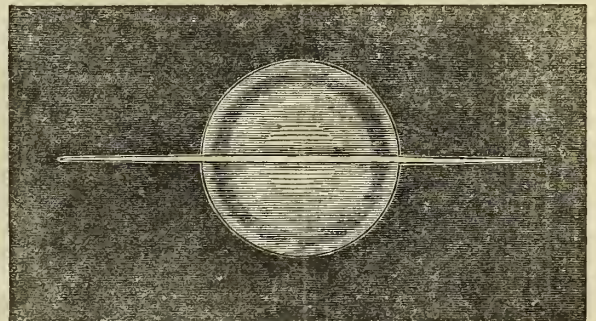
Scale, forty seconds of arc to one inch.

rises before the Sun sets; and he sets before the Sun rises. He souths at an altitude of 61° above the south horizon, on the 1st, at 27m. after midnight; on the 15th, at 1h. 24m. P.M.; and on the 31st, at 10h. 13m. P.M.

He is moving slowly westward among the stars. The Moon is near him on the 19th. At the beginning of the month he is 11° distant from Castor, and 8° from Pollux, and during the month he is moving slowly from them. No Planet is near him. A number of eclipses of the Satellites are visible; the times at which these phenomena take place are shown below.

SATURN will be in the constellation of Aquarius throughout the month. He is an evening star, and sets near W. by S. on every day. On the 1st, at 9h. 14m. P.M.; on the 15th, at 8h. 25m.; and on the 31st, at 7h. 33m. He rises before noon, and souths on the 15th, at 3h. 11m. P.M. He moves slowly eastward among the stars till the end of June. He is near the Moon on the 10th, and Mercury on the 18th.

## TELESCOPIC APPEARANCE OF SATURN DURING THE MONTHS OF JANUARY AND FEBRUARY, 1848.



Scale, fifteen seconds of arc to one inch.

In this Planet's course round the Sun, the ring assumes a variety of appearances, from being fully presented to us, then gradually becoming smaller and smaller till it becomes invisible, or, as viewed through the most powerful telescopes, merely an almost imperceptible line. The ring is now approaching to this state, and will have the appearance as shown in the annexed diagram, during this and the following month. The progress of the decrease and increase of the appearance of Saturn's ring, is an interesting phenomena to watch. (See the engravings of Saturn in this, and those in the two preceding Almanacks.)

					JUPITER'S SATELLITES.				OCCULTATIONS OF STARS BY THE MOON.								
Days of the Month.	Length of Day, or number of hours between sunrise and sunset.	Number of Hours and Minutes the Day has in- creased since the Shortest Day.	Time of Day-break, beginning of increased Day.	Time of Twilight Ending.	Eclipses of				Names of Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright of the limb of the Moon.					
					1st Sat.		2nd Sat										
					Immersion. I.		Emersion. E.										
1	H. M. 7 52	H. M. 0 7	H. M. 6 3	H. M. 6 5	D. H. M. 5 3 24 A. M. I.	D. H. M. 1 7 40 P. M. I			Aldebaran	1	{	D. H. M. 16 3 44 P. M.	Dark				
6	7 57	0 12	6 3	6 10	8 6 34 P. M. E.	9 1 7 A. M. E.						16 4 29 P. M.		Bright			
11	8 6	0 21	6 1	6 15	14 2 0 A. M. E.	16 3 43 A. M. E.						17 10 26 P. M.		Dark			
16	8 18	0 33	5 59	6 21	15 8 29 P. M. E.	26 7 38 P. M. E						17 11 27 P. M.		Bright			
21	8 30	0 45	5 55	6 28	21 3 54 A. M. E.		3rd Sat.		u Geminorum	5½	{	18 8 32 P. M.	Dark				
												18 9 37 P. M.		Bright			
26	8 47	1 2	5 51	6 28	22 10 23 P. M. E.		4 1 5 A. M. I.		29 Cancri	6	{	20 6 9 P. M.	Bright				
												6 47 P. M.		Dark			
31	9 1	1 16	5 45	6 44	30 0 18 A. M. E.		4th Sat.										
					31 6 46 P. M. E.		28 9 43 P. M. I										
							29 0 59 A. M. E										
TIMES OF CHANGES OF THE MOON.					RIGHT ASCENSION AND DECLINATIONS OF THE PLANETS.												
And when she is at her greatest distance (Apogee) or at her least distance (Perigee), from the Earth, in each Lunation.					Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
						Right Ascension	Declination South	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
NEW MOON ..	6D. 0H. 8M. P.M.	1	17h. 36m.	23° 24'	15h. 31m.	16° 1'	2h. 12m.	14° 44'	7h. 10m.	22° 39'	22h. 43m.	10° 7'	0h. 54m.	5° 4'			
FIRST QUARTER ..	13 11 47 A.M.	6	18 8	24 6	15 54	17 22	2 18	15 20	7 8	22 44	22 45	9 57	0 54	5 6			
FULL MOON ..	20 0 5 P.M.	11	18 42	24 16	16 17	18 34	2 25	15 59	7 5	22 49	22 47	9 46	0 54	5 7			
LAST QUARTER ..	28 11 59 A.M.	16	19 16	23 53	16 41	19 37	2 33	16 39	7 2	22 54	22 48	9 34	0 55	5 10			
PERIGEE ..	13 2 A.M.	21	19 51	22 54	17 5	20 29	2 41	17 19	6 59	22 59	22 50	9 22	0 55	5 12			
APOGEE ..	27 8 A.M.	26	20 27	21 18	17 30	21 9	2 50	18 1	6 57	23 3	22 52	9 10	0 56	5 16			



# COUNTRY SCENES—JANUARY.

(FOR EVERY MONTH, BY THOMAS MILLER.)



Ah, bitter chill it was!  
The owl, for all his feathers was a-cold;  
The hare limped trembling through the frozen grass,  
And silent was the flock in woolly fold. KEATS.

JANUARY is called the Gate of the Year—the Entrance Hall that leads to the seasons. We must pass through the grey leaden-coloured portico, supported with glittering pillars of ice, before we can reach the flowery doors of Spring, beyond which the dark green gates of Summer open, while far behind Autumn swings wide upon its golden hinges, revealing a landscape that looks like the ocean basking in the yellow sunshine, its waves the ever-moving uplands, waving drowsily with eary corn.

The walls of this solemn hall, which open indistinctly upon a longer twilight, and silently diminish the darkness that hangs upon the edge of the expanding day, are formed of grey snow, propped up by the mighty bulk of naked forest trees; the knotted and iron elbows of which are linked one within the other—while around hang life-like pictures, all in keeping with the scene—landscapes of ice and snow with cold looks that are half warmed by the dark foliage of the evergreens, and cheered by the rounded crimson of the holly berries, while the trailing ivy, from which the snow flakes have melted, clasps the cottage chimney whence the curling smoke ascends in trails of blue and silver, like clouds that have lost their way, and are wandering back again to the sky. There, spreads out a lonely mere, seeming darker through contrast with the snow-wreaths which surround it, while, deep below, the trees look down, as if cut out from solid ebony: and the crisped reeds, the ghastly skeletons of Summer, whisper to each other with a frozen breath, as if they dreaded that the bleak north wind

should overhear their husky rustling, or with his cutting shears lay them prostrate, blanched, withered, and dead.

In another picture, we see a rustic stile; the snow, that rests upon the barked bars, is imprinted with the robin's feet, while his scarlet breast, harmonising beautifully with the cluster of crimson hips that droop from the leafless spray of the wild rose, form a cheerful foreground to the desolate moorland that lies behind; and as we look upon the open beak of the bird, and his black-beaded and fearless eye, we can fancy that we hear him singing as sweetly as if Summer still stood on tiptoe with her hair unbound, and held between her rosy fingers her streaming garland of long green leaves.

Further on we behold the blue titmouse, hanging by its hooked claws, back downward—yet never fearful of falling; peeping with curious eye, beneath the level-clipped broad-thatched eaves in search of insects, while the white cat, motionless, as if cut out of marble, sits watching upon the smooth-bricked window-sill, sometimes feigning sleep, yet ready to spring up, if only a straw fall from the beak of the busy bird. Past the church porch, whose steep roof is covered with unruffled flakes, an old beggar-man in his thread-bare coat moves slowly along, his head bow-bent—the cutting wind that comes sweeping round the low square tower, blows back his long silver hair, on which the unmelted snow rests, and he pulls his weather-beaten hat lower over his forehead, and grasps his long staff firmer, with his cold blue hands, as he faces the eddying gnat.



Whichever way the observant eye turns, this great Hall that opens upon the year is hung with pleasing pictures, and filled with interesting objects. On the dark beams that span above, the hat folds up his leathern wings, and with his head drooping, soundly sleeps; the little dormouse, coiled up like a ball, rests in its burrow, beneath the roots of the antique oak, and should it chance to awaken before the warm days come, feeds upon the hoard it has secured, then folds itself up again in its dark chamber, and waits until it sees the sun-shine streaming from the chinks of the inner door of Spring. High overhead, though still held by the heavy snow-filled clouds, is heard the shrill scream of the wild geese; their arrow-pointed ranks cleave the chilly air, as they sail at night far over the silent town to where the reedy marsh and the sedgy morass stretch out, intercepted by melancholy streams, on the surface of which, excepting themselves only, the shadow of the solitary fowler in his boat is seen to move. There, when the wind stirs the ridgy ripples in the calm moonlight, the wild swan sleeps majestically upon the rocking eddies; the underdown of his silver plumage bared by the fitful gusts that come by sudden starts and then are still, although the rocky motion uncoils not his arched neck, nor unfolds the black beak which is thrust for warmth under his wing.

Without, on the frosted branches, the fieldfares sit huddled together in their feathery coats, looking with hungry eyes upon the few withered herries, black and hard, which the wintry wind has left; while, in the distance, the poor sheep pause every now and then to give a plaintive bleat, as they cease for a moment their cold labour of burrowing for food amid the knee-deep snow; for every-way the country around is covered with it, the fields are all but silent, the high roads are no longer alive with busy figures, and where the heavily laden waggon moves slowly along, it comes with a dead and muffled sound, unlike the cheerful tramp and gritty creak which grinds down the wayside pebbles into summer dust.

Few, excepting they are true lovers of nature, would be tempted to climb the summit of a steep hill to witness the strange and beautiful appearance the landscape below presents if covered deeply with snow. Ascend, and you seem as if looking over a country that is silent and uninhabited. The hedges rise, like white walls, huilt up as boundary lines through a vast expanse, that one way presents no other landmarks, excepting a few trees, and the black line of a winding river; all beside is one wide outstretched territory of snow. Objects which, at other times, are familiar to the eye, have assumed new shapes; the thatched roof of the cottage and the hayrick, the shed in the field and the high pile of winter-fagots, have all put on a strange disguise; and, but for the smoke which is distinguishable above the low chimney, there is no stir of life to proclaim the existence of man. To the left, the village-spire rises like a lonely monument above a hurried country, which seems to tell that all below are dead; for the roads are no longer visible, and what motion there is in the little hamlet is unperceived. It seems as if it had drifted far away, and was fast sinking in the centre of a great and silent sea of snow, the church-spire alone visible above the floating and far-off wreck.

Formless, the pointed cairn now scarce o'ertops  
The level dreary waste; and coppice-woods,  
Diminished of their height, like bushes seem.

What a picture of the wild and fearful winters of ancient times is presented in the name our Saxon ancestors gave to January, which they called Wolf-month: on account of the ravages made by that animal at this dreary and desolate season of the year. Then our island abounded with huge morasses, swampy wastes, lonely moors, and vast tracts of dreary forest-land, and over these snowy solitudes, in the dark midnights of winter, the howl of the wolf was heard, as ravens, on for prey, he ventured nearer the Saxon huts, and prowled about the doorway of the habitation of man. Dismal and dangerous were the paths then traversed by the lonely wayfarer, for towns and villages lay long and wide apart, and there were but few roads, excepting the long, straight, monotonous highways made by the Romans, or the broken and uncertain bridle-paths, which wound along the dangerous and precipitous banks of the rivers, or at best, in later times the narrow ways traversed by the ancient merchants, with their trains of pack-horses, who went, carefully picking their way through the storms and snow, and darkness of winter. Even now in the vast wolds of Yorkshire, and over the wild broad marshes of Lincolnshire, there exists many a miry and dangerous cross-road, where even a traveller well acquainted with the country, is, in winter, in momentary danger of foundering.

Although January is one of the coldest months of the year, it is accompanied with the consolation of knowing that the shortest day is past, and that every sunset brings us nearer to the flowery land of Spring, for on each morrow we hear the chirrup of the sparrow sooner under the eaves, and we find the grey dawning peeping in earlier and earlier at the lattice, and looking upon the earth as if to see if any bud has yet broken through its brown sheath, or whether the snow-drop has ventured forth into the cold waste, to shiver alone and wait companionless for its warmer attendant the yellow crocus of spring.

At this season of the year a bitter black frost sometimes sets suddenly in, which makes itself felt everywhere; the few green things that remain, crinkle and wrinkle up as if they had been scorched, nothing seems to grow, the little hardy bud makes no progress, the earth looks as if it had changed to stone, and beneath it, nature lies dead and buried. The poor birds, as if for condolence, come nearer to the habitation of man—upon the pallings, upon the garden-hedge, and about the farm-yard, we see many whose plumage is new to us, and whom hunger alone has driven from the deep seclusion of the woods.

In one bleak biting night the pond is frozen over, and, deluded by the dazzling surface of ice, the cattle, more thirsty through the dry, hard, moistureless food which forms their winter diet, hang down their heads to drink, when, instead of the cold yielding water, their hot breath comes in contact with the chilly marble-like ice, and after several vain attempts to penetrate it, they raise their heads and low piteously, nor cease until the farmer-boy either comes with a mallet or a long pole, breaks through the hard mass, and leaves them to drink their fill. Numbers of fish perish at this time of the year in the ponds and reservoirs through want of air and food, both of which it is easy to supply them with, by breaking holes in the ice, and throwing in bread, grain, or the offals of animals, for unless this is done they will soon begin to devour each other. It is a well-known fact that fish will come at the call of those who are accustomed to feed them, take food from the hand of their keeper, and allow themselves to be touched without attempting to escape, or displaying any symptom of fear. Eels will bury themselves in the mud as a protection from cold, and the carp, it is also believed, seeks the same retreat in severe weather.

Yet, under this vast winding-sheet, that seems to cover the dead, nature is still at work; the seed that remains invisible is silently swelling and hursting below, and in a few more weeks pale lines of green will show where the spring corn has broken through the furrow. The little brown rounded bud is forming, coil within coil, and will ere long thrust its emerald point from out its confined cell, as if timidly peeping forth, and waiting until the rain and the sunshine called it, to bare its broad green beauty to the breeze; for then the woods will no longer be alone filled with

Those boughs, which shake against the cold  
Bare ruined choirs where late the sweet birds sung.

The Winter-sleep of many animals is a wonderful provision of nature—although we are perhaps wrong in giving the name of sleep to such a state of torpor, for it is neither produced by over-exertion, nor caused by a want of repose. Some prepare for this uncertain state of slumber by storing up food against they awake, or revive—for either hunger, or a sudden change from cold to heat, or causes which are to us unknown, and against which several of our hibernating quadrupeds appear to guard, often rouse them at mid-Winter, and there is no doubt that they would perish were it not for this fresh supply of food. Some, like the dormouse and harvest-mouse, coil themselves up like a ball, and may be rolled about without evincing any sign of life while in this state—so may the hedgehog—although the latter ever assumes such a form when in danger, and presents the same lifeless appearance at pleasure, while, unlike the former, it lays up no store against Winter. The squirrel also passes a great part of the cold season in a torpid state, taking care, however, in case he should feel “the hungry edge of appetite,” to have a dozen or two of well-stored larders in readiness, which he very often finds robbed, when he comes to visit them. But no one seems to lay up such provision for Winter as the long-tailed field-mouse, which consists of acorns, nuts, corn, and seeds of various descriptions, the accumulation of many a journey, which, when garnered, and nicely arranged, is often rooted up by some hog, as he comes grunting and smelling about the ground, where this little hoarder has concealed his treasure. How he manages to pass the Winter when his house is thus broken open and robbed, we are at a loss to divine, for we can readily imagine that one who has made such hountiful provisions in his chamber, would not be able to rest long together when it is empty. The bats also hibernate, huddling together for warmth, and not only holding on the roofs, and beams, and caverns, and in the hollows of trees, by their claws, but crowding one over another, until it is really wonderful what numbers are congregated in so small a space, as they are often found to occupy. On the habits of some of these animals, we may dwell more lengthily as we pass through the different changes of the year, for now they may be compared to the seed, which, though not dead, is hidden in the earth, to appear again in due season.

There is something beautiful to a fanciful mind in the varied forms which the frost-work assumes, and although we must venture out of doors to witness the most wonderful productions formed by this strange and silent hand, still those who are too fearful of the cold, or too indolent to venture forth, may discover within doors, traces of the finger of this Hoary Worker—shrub, and flower, and leaf, as of unseen and cunning embroidery, all wrought in one night by this silent and unweakened enchanter. What wild landscapes does he put together! mountains, and deep gorges, and steep precipices, with overhanging pines that seem ready to drop into the dark gulf below—for such are among the many wonders which this artist produces. Strange effects are also wrought by a sudden freezing shower; when the rain encloses all it falls upon, as if with a glass covering, or clings to larger objects, and hangs them about with gems of the clearest crystal, until—

In pearls and rubies rich the hawthorn show,  
While through the ice the crimson herries glow.

These showers also produce a startling effect upon birds, causing them to flutter and shake out their wings to get rid of the cumbersome jewels, that only impede their free and natural motions. Yet this very power slowly produces the mighty glacier that, in its thunderous fall, shakes the whole valley into which it descends. January is considered a dead month, and in a severe winter, is one of the dullest in the whole circle of the year; still the out-of-door naturalist will find many objects to instruct and interest him, and may become acquainted with the habits of many living things which the full-leaved summer enshrines. Birds, which at other times seldom venture near the abode of man; insects, which a fine day of sunshine has aroused from a torpid state; and animals which the floods or hunger have forced from their hiding places; for even the little harvest mouse, either driven from the barn by the removal of the corn, or disturbed from its winter slumber in the earth, may sometimes be seen hurrying off through the shelter of a leafless hedge to its retreat, for

Nature in her sleep is never still.







M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.				MOON.			DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE.				EQUA- TION OF TIME.		Day of the Year.
			Rises.	Sets.	DECLINA- TION SOUTH.	Deg. Min.	Rises. Morning.	Souths. Morning.	Sets. Afternoon	Before Sunrise.		Moon's Age.	After Sunset.		Morning.	Afternoon	Add.			
										O'Clock.	2h. 4h. 6h.		O'Clock.	6h. 8h. 10h.						
1	Tu	Pheasant and Partridge shoot- ing ends	7 42	4 46	17 15		4 28	8 58	1 26				26			11 5	11 37	13 50	32	
2	W	<i>Purif. Cand. Day</i>	7 41	4 48	16 58		5 20	9 50	2 21				27			No Tide.	0 15	13 58	33	
3	Th	<i>St. Blaise.</i> This is a great day among wool-combers, who celebrate the anniversary of their patron on this day	7 39	4 50	16 41		6 8	10 44	3 24				28			0 38	1 5	14 5	34	
4	F		7 37	4 52	16 23		6 50	11 39	4 35				29			1 26	1 50	14 11	35	
5	S	<i>St. Agatha</i>	7 35	4 54	16 5		7 26	Morning.	5 50				30			2 10	2 35	14 17	36	
6	S	5TH. AFT. EPIPHA.	7 34	4 55	15 47		8 0	1 28	7 7				31			2 55	3 15	14 22	37	
7	M	<i>α</i> Arctis souths 4h. 50m. P.M.	7 32	4 57	15 29		8 29	2 21	8 24				1			3 30	3 55	14 26	38	
8	Tu	Half Quarter	7 30	4 59	15 10		8 58	3 14	9 42				2			4 15	4 35	14 29	39	
9	W	<i>α</i> Ceti souths 5h. 33m. P.M.	7 29	5 1	14 51		9 28	4 7	11 0				3			4 55	5 15	14 31	40	
10	Th	Qu. Vic. mar. 1-40	7 27	5 3	14 32		9 58	5 1	Morning.				4			5 40	6 0	14 33	4	
11	F	<i>α</i> Persi souths 5h. 49m. P.M.	7 25	5 4	14 12		10 33	5 55	0 15				5			6 25	6 45	14 33	42	
12	S	<i>β</i> Tau souths 7h. 49m. P.M.	7 23	5 6	13 52		11 11	6 50	1 28				6			7 10	7 40	14 33	43	
13	S	6TH S. AFT. EPIPH.	7 22	5 7	13 32		11 57	7 46	2 26				7			8 15	8 50	14 32	44	
14	M	<i>St. Valentine. St.</i>	7 20	5 9	13 12		Afternoon.	8 40	3 38				8			9 35	10 15	14 31	45	
15	Tu	Valentine was a Bishop of Rome in the 3rd century and suffered martyrdom under the Emper. of Vale- rian.	7 18	5 11	12 52		1 46	9 34	4 31				9			10 58	11 40	14 28	46	
16	W		7 16	5 13	12 31		2 48	10 26	5 17				10			No Tide.	0 15	14 25	47	
17	Th		7 14	5 15	12 10		3 54	11 16	5 56				11			0 46	1 10	14 21	48	
18	F	Aldebaran souths 6h. 36m. P.M.	7 12	5 17	11 49		4 58	Morning.	6 29				12			1 36	2 0	14 16	49	
19	S	Capella souths 7h. 10m. P.M.	7 10	5 19	11 28		6 4	0 3	6 57				13			2 20	2 40	14 11	50	
20	S	SEPTUAGESIMA S.	7 8	5 21	11 7		7 8	0 49	7 23				14			3 0	3 15	14 5	51	
21	M	Castor souths 9h. 23m. P.M.	7 6	5 23	10 45		8 12	1 33	7 48				15			3 35	3 50	13 58	52	
22	Tu	Procyon souths 9h. 25m. P.M.	7 4	5 25	10 24		9 15	2 16	8 11				16			4 5	4 30	13 51	53	
23	W	Pollux souths 9h. 25m. P.M.	7 2	5 27	10 2		10 18	2 59	8 34				17			4 35	4 50	13 43	54	
24	Th	Duke of Cam. born.	7 0	5 29	9 40		11 19	3 42	9 0				18			5 5	5 25	13 35	55	
25	F	[ <i>St. Matthias.</i>	6 57	5 30	9 18		Morning.	4 26	9 26				19			5 39	5 55	13 25	56	
26	S	Rigel souths 6h. 44m. P.M.	6 55	5 32	8 55		0 19	5 11	9 58				20			6 15	6 30	13 16	57	
27	S	SEXAGESIMA SUN.	6 53	5 33	8 33		1 18	5 58	10 34				21			6 50	7 10	13 5	58	
28	M	Camb. T. div. noon	6 52	5 35	8 10		2 14	6 47	11 16				22			7 35	8 10	12 55	59	
29	Tu	Sirius souths 8h. 3m. P.M.	6 50	5 37	7 48		3 8	7 37	Afternoon				23			8 50	9 30	12 43	60	



## FEBRUARY.

THE SUN is in the sign Aquarius till the 19th; on which day at 11h. 20m. A.M., he enters the sign Pisces (the fishes).

On the first day he is 93,630,000 thousand miles from the Earth. He rises on the 1st midway between the E.S.E. and S.E. by E.; and sets midway between the W.S.W. and S.W. by W. On the 11th, he rises at the E.S.E., and sets W.S.W.; and on the last day, he rises and sets 2° south of E. by S. and W. by S. respectively.

He souths on the 1st, at 13m. 50s.; on the 15th, at 14m. 28s.; and on the last day, at 12m. 43s., after noon (common clock time); at the altitudes of 21° on the 1st; 25° on the 15th; and of 30½° on the 29th.

The Moon rises between midnight and noon from the 1st to the 13th, and after noon and before midnight from the 15th day. She sets between midnight and noon from the 1st to the 9th, and between midnight and noon after the 11th.

She is moving on the boundaries of the constellations of Sagittarius and Aquila, on the 1st, 2nd, and 3rd; in Capricornus on the 4th; Aquarius on the 5th and 6th; Pisces on the 7th; Cetus on the 8th; Pisces on the 9th; Cetus on the 10th and 11th; Taurus on the 12th and 13th; Gemini on the 14th and 15th; Cancer on the 16th and 17th; Leo on the 18th, 19th, and 20th; Virgo on the 21st, 22nd, 23rd, and 24th; Libra on the 25th and 26th; Ophiuchus on the 27th, and 28th; and Sagittarius on the 29th.

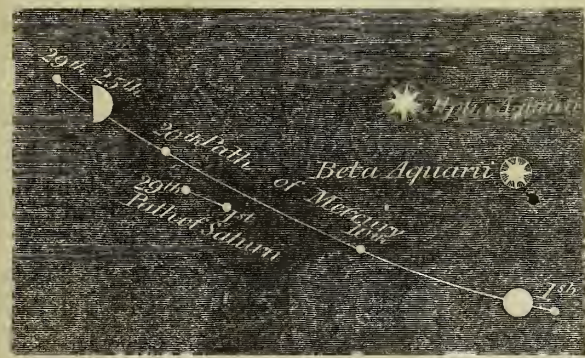
On the 1st, she is at her lowest point, and is 20° above the horizon when she souths; after this time, she is moving northwards or upwards; is on the Equator on the 8th; and attains her greatest altitude on the 14th, at which time she is 56° above the horizon, when she souths; is on the Equator again on the 21st; and at her lowest point again on the last day.

She is New on the 5th, and Full on the 19th; but without an eclipse at both times. On the 1st, she is near Venus; on the 5th, near Mercury; on the 7th, near Saturn; on the 9th, near Uranus; on the 11th, near Mars; and on the 15th, near Jupiter.

Several stars are occulted by her during the month, for list of which, and times of occurrence, see below. The bright star Aldebaran is occulted on the 12th.

MERCURY, between the 1st and the 6th, is in the constellation of Capricornus; he passes, on the 6th, into Aquarius; and, on the 18th, into Pisces.

PATH OF THE PLANETS MERCURY AND SATURN, IN FEBRUARY, WITH RESPECT TO EACH OTHER, AND TO THE FIXED STARS.



Scale, fifteen degrees to an inch; the planet Mercury is drawn on a scale of 40 seconds of arc to an inch.

He sets on the 1st, at 4h. 50m.; on the 6th, at 5h. 24m.; on the 12th, at 6h. 4m.; on the 15th, at 6h. 24m.; on the 18th, at 6h. 43m.; on the 21st, at 7h. 0m.; on the 24th, at 7h. 12m.; on the 27th, at 7h. 26m.; and on the 29th, at 7h. 22m. These times follow those of the Sun setting, on the 1st, by 4m.; on the 6th, by 29m.; on the 12th, by 48m.; on the 15th, by 1h. 11m.; on the 18th, by 1h. 26m.; on the 21st, by 1h. 37m.; on the 24th, by 1h. 43m.; on the 27th, by 1h. 53m.; and on the 29th, by 1h. 45m. Therefore, from the 15th to the end of this month, this planet is very favourably situated for observation, after the Sun has set. The interval of time between the Sun and this planet setting, on the 27th day, is the largest in the year. The points of the horizon

where he will set during the month are near W.S.W. at the beginning; near W. by S., at the middle; and near the West, at the end. He is moving Eastward among the stars very quickly at the beginning, and less quickly towards the end of the month; as is shown in the subjoined cut, which also shows that the planets Mercury and Saturn are near to each other on the 18th. The appearance of Mercury is also shown at the beginning, and near the end of the month; between these times, the planet's appearance will be intermediate between these two appearances.

Venus will be in the constellation of Sagittarius till the 24th, and in that of Capricornus after that time.

She is a morning star, and rises near the S.E. by E., on the 1st, at 5h. 12m.; on the 15th, at 5h. 28m.; and on the 29th, at 5h. 29m. A.M. On the 1st, she souths at 9h. 17m. A.M.; on the 15th, at 9h. 34m.; and on the 29th, at 9h. 50m. A.M., at an altitude of 17° on the 1st, gradually increasing to 19° on the 29th. She is near the Moon on the 1st.

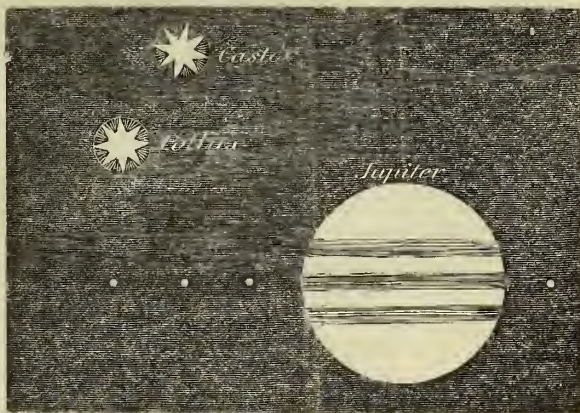
Mars will be in the constellation Aries till the 9th, and in that of Taurus from the 10th to the end of the month; and Jupiter will be in that of Gemini throughout the month.

PATH OF MARS IN FEBRUARY, 1848.



Scale, seven-and-a-half degrees to one inch; the appearance of Mars is drawn on a scale of 40 seconds of arc to one inch.

RELATIVE POSITION OF JUPITER TO CASTOR AND POLLUX.



Scale, seven-and-a-half degrees to one inch; the planet is drawn on a scale of 40 seconds of arc to one inch.

Days of the Month.	Length of Day, or number of hours between Sunrise and Sunset.	Number of Hours and Minutes the Day has increased since the Shortest Day.	Time of Daybreak, or beginning of Twilight.	Time of Twilight Endiog.	JUPITER'S SATELLITES.						OCCULTATIONS OF STARS BY THE MOON.			
					Eclipses of						Names of the Stars	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
					1st. Sat.		2nd. Sat.		3rd Sat.					
					Emersion.		Emersion.							
1	H. M.	H. M.	H. M.	H. M.	D. H. M. M.	D. H. M. M.	D. H. M. M.	75 Tauri	6	D. H. M.	Dark			
5	9 4	1 19	5 44	6 45	6 2 12 A. M.	2 10 15 P. M.	10 0 52 A. M.	Aldebaran	1	12 7 13 P. M.	Bright			
9	9 15	1 30	5 38	6 50	7 8 41 P. M.	10 0 52 A. M.	17 3 29 A. M.			12 8 18 P. M.	Dark			
13	9 32	1 47	5 32	6 58	13 4 7 A. M.	17 3 29 A. M.	27 7 24 P. M.			12 11 13 P. M.	Bright			
17	9 45	2 0	5 27	7 4	14 10 36 P. M.	27 7 24 P. M.		111 Tauri	6	13 0 7 A. M.				
21	10 1	2 16	5 19	7 11	22 0 31 A. M.						13 6 11 P. M.	Dark		
25	10 17	2 32	5 13	7 16	23 7 0 P. M.						13 7 8 P. M.	Bright		
29	10 33	2 48	5 5	7 22	29 2 26 A. M.			Lambda Geminorum	4½	15 6 19 P. M.	Dark			
	10 47	3 2	4 57	7 30							15 7 25 P. M.	Bright		
											18 7 2 P. M.	Moon nearly full		
					4th Sat.			10 Sextantis	6	18 8 4 P. M.				
					14 7 10 P. M.	1 8 17 P. M.	9 0 18 A. M.							
						16 1 2 A. M. I.	16 4 18 A. M. E.							

## TIMES OF CHANGES OF THE MOON,

And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.		RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
		MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
NEW MOON	..	5d. 1h. 42m. A.M.	1	21h. 9m	18° 33'	18h. 1m	21° 38'	3h. 1m	18° 50'	6h. 54m	23° 8'	22h. 55m	8° 55'
FIRST QUARTER	..	11 7 56 P.M.	6	21 44	15 33	18 26	21 47	3 11	19 30	6 52	23 11	22 57	8 42
FULL MOON	..	19 3 57 A.M.	11	22 19	11 58	18 52	21 40	3 21	20 10	6 50	23 13	22 59	8 23
LAST QUARTER	..	27 8 22 A.M.	16	22 51	7 58	19 13	21 17	3 31	20 43	6 48	23 16	23 1	8 14
PERIGEE	..	8 1 A.M.	21	23 19	3 54	19 43	20 40	3 42	21 25	6 47	23 17	23 3	8 0
APOGEE	..	24 2 A.M.	26	23 40	0 26	20 J	19 47	3 53	21 59	6 46	23 19	23 6	7 46





We oft mistake the ivy spray  
For leaves that come with budding Spring,  
And wonder "on each sunny day,"  
Why birds delay to build and sing.

JOHN CLARE.

WINTER! still Winter! but cheered with occasional glimpses of such bright sunshine, and revealing now and then such beautiful patches of clear blue sky, that we know Spring is somewhere at hand behind the clouds, and keeps withdrawing the curtain that conceals her, to look down upon the earth, as if she were eager to return. But Winter grasps not his icy sceptre with so firm a hand as he did in January; the bleating of the young lambs alarms him; and the merry cawing of the noisy rooks tells him that his reign is drawing to a close; for sometimes he feels a rounded daisy stirring beneath his naked feet, though it is still invisible to the human eye; and all these things warn the hoary and bearded old Monarch that he must soon resign his throne, to the beautiful young Queen, who only awaits the opening of the flowers before she is crowned. Now and then he raises "his old right arm," and compels us to confess his power; but the golden crocuses lessen his dim eyes, and the daisies grow larger in spite of his anger; the elder puts out a few green buds, and the willows begin to show their silvery catkins; and while he sleeps, the sunshine is ever peeping out—signs which proclaim the hour of his departure is drawing nigh; for—

Shadows of the silver birch  
Sweep the green above his grave.

On fine days, the cottage doors and windows are thrown open, and we hear once more the merry voices of children in the village streets; for the sweet Sunshine who maketh all glad and innocent things his companions, hath beckoned them forth to play, though it be but for the space of one bright brief hour. As you walk down the narrow green lanes and along the broad highways, you inhale the cheerful and refreshing aroma of the fresh earth, as it is turned up by the ploughshare; and, as the healthy smell is wafted upon the breeze, you might fancy that it had been scented by the hidden flowers which still lie asleep and sheltered, beneath the ridgy furrows, and sometimes, when—

Through the sharp hawthorn blows the cold wind,

you hear the faint bleating of a little lamb, that stands shivering beside the naked hedge, looking as if conscious that its troubles had already commenced, as if fearful that it should not be able to pick up a living in such a bleak, cheerless, and flowerless world. At intervals, the lark springs up; and, although he is carried far aside by the strong wind, he boldly hreasts the storm with his ruffled plumes, and tries a few notes to see how they will sound after the long silence of Winter—then descends again to nestle beside the little daisies that are just beginning to see. Now and then, the blackbird and thrush strike up a few notes from the



leafless brake, then pause, with their heads hanging aside, as if listening in wonder that they are not answered by their former companions, whose sweet voices were wont to swell out the full-throated anthem of Spring.

In the ancient neighbourhood of the busy rookery, the work of Spring has already commenced. In the trees they are building and quarrelling, in the fields they are "scratching" and foraging from morning till night. You see them close upon the heels of the ploughman; they follow the footsteps of the sower; they are ever sailing downward in search of worms or insects, then returning again to their "old ancestral trees," with an additional beam for their house, and filling the whole air around with their low, dreamy cawing, which gives such a Spring-sound to the still flowerless landscape.

Every time we walk abroad, we see the slow and sure progress which nature is making. First, a bud or two appears of a larger size; then we discover one already green; and it is wonderful, after a shower, and a day or so of sunshine, to witness the bulk to which the little ones have grown—though the last time we looked at them there was scarcely a sign to tell, that they would so soon display traces of their green beauty. The gooseberry-bush shows a dim glimmering of green, more like the reflection of a colour, than the real blue which it afterwards assumes; yet this grows bolder and brighter every day, and at last we find the full form of the leaf revealed, on a tender and tiny bud, which the sun has tempted to open. Winter, and the first dawning of Spring, afford the best opportunities of witnessing the rich effects produced by moss, lichen, fungi, or liverwort, upon the trees. Here we meet with the gaudy and mingled hues of the rich green, the glowing orange, the pale primrose, the silver grey, with browns of every tone, that go deepening down from dusky amber to the dark hue of the chestnut, until they sink into the jetty blackness which mantles the stem of the oak. Beside these, the dark green winding outline of the ivy is fully revealed, giving a Summer look to the trees it clothes, and trailing, here and there, in beautiful and slender lines, among their naked branches. The little water-runnels, which have also been silent and ice-bound during the Winter, now come tinkling down the steep hill-sides, and roll in pleasant murmurs through the dim green meadows, as if they were hurrying along in quest of the flowers. The little leaves which point out where the modest primrose will soon appear, are already visible; and in our walk through the woodland, we can discover the pale green blades which tell us that the blue-bells have already come up, and that ere long the ground will be covered with a hue bright and beautiful as the face of heaven; for every way we discover traces of that unseen hand which is busy with its silent work. You might fancy that a snow-flake still lingered here and there upon the meadows, until you find on a nearer approach that it is

The daisy scattered on each mead and down,  
A golden crest within a silver crown.

You also perceive the cottagers employed in their little gardens, making preparations for the approach of Spring; the spade is brought forth from its hiding-place; seeds, which have been carefully preserved, are hunted up, and even a few of the earliest sown; while, in the garden fence, the little hedge-sparrow, not less industrious, prepares the nest which is to contain its "sky-stained eggs." Even the very changes of the weather, which seem for a time to check these operations, are silently forwarding them. The snow that occasionally falls, warms and nourishes the tender buds; the winds dry up the over-abundant moisture; mists, fogs, and rains, all bring their tribute to enrich the earth, and do His bidding, who gave us "seed time and harvest." The rank decay of vegetation—the exhalations that are ever arising—the insects that burst from their larvæ state—and the poor blind worms that burrow through and loosen the soil, are all doing their allotted work, and, though disregarded, are assisting man to prepare the soil, while

Surly Winter passes off  
Far to the north, and calls his ruffian blasts;  
His blasts obey, and quit the howling hill,  
The shatter'd forest, and the ravaged vale;  
And softer gales succeed.

Those who are not accustomed to study the habits of birds, would conclude that it is difficult for them to survive in England during our hard winters, especially as they are called the soft-billed; but were they to watch their habits narrowly, they would perceive that, outhouses, stables, holes in old decayed walls, gate-posts, the stems of large hollow trees, spring heads, which seldom freeze, places where cattle are kept up and foddered in winter, all abound in food of various descriptions, suitable to their nature; such as insects in their aurelia state, flies and spiders that have concealed themselves until the cold weather is over, and numberless insects that abound under the layers of dead leaves. The vision of birds is extremely acute, and it is probable that what we should not be able to discover without the aid of a microscope, is to them perfectly visible, and that they find food in the eggs of insects, &c., which we are totally unacquainted with.

Amongst the few birds which sing at this season of the year, is the misel-thrush, or, as it is called by the country people, the storm-cock, whose early song is considered to denote a tempest. Its favourite food is the berry of the mistletoe; and there is a superstitious notion that the seed of the berry of this curious plant, which was gathered with such solemn ceremony by the ancient Druids, will not grow until it has first been swallowed by this bird; a belief, which is almost needless to state, is wholly erroneous. The song of no bird has called forth more discussion among naturalists than that of the misel-thrush; some even asserting that it has no voice, saving the harsh predictive note which it utters before the approach of a storm. This, however, I believe to be theory it makes when it is alarmed, or in pursuit of its prey; for, if I err not, I have frequently heard it sing amongst old orchards in the midland counties in February, and that, although its song is much inferior to that of the thrush, or common throistle, it is loud, pleasing, and harmonious, nor do I think it is easy to mistake the bird, as it is nearly twice the weight of the thrush.

During the cold weather, the mole is busy working his way still deeper underground, for the further the frost penetrates, the lower he digs in quest of the worms which the cold has driven so far down; these are its favourite food. In the north of England, it is still called the mouldi-warp, mole being a common expression for soil, and warp for the earth which is turned up. Thus, the silt, or mud which is left by the tide on the side of rivers, is invariably called warp in the midland counties; the furrows in ploughed fields are also called warp; and newly-ploughed land, warp-land. I am thus particular in giving the full meaning to the word, as it is pure, unaltered Saxon; and I have no doubt that the mole was called the mouldi-warp, long before Alfred the Great sat upon the throne of Wessex. Those who are unacquainted with that curious structure called a mole-hill, have but a faint idea of the chambers and galleries, and courts, and streets, which branch out beneath the little hillock they so often meet with during a country ramble. The encampment of the mole is its hunting ground, its forest, its chase; in some one or another of these long, winding, underground avenues, it is sure to meet with prey; and the mole is a most persevering hunter, visiting his preserves many times during the day. It is always in excellent condition; and in the North, "fat as a mouldi-warp," is an old and

common saying. It is not only a great eater, but also a great drinker; and, although it is not more than five inches long, will not hesitate to attack either a mouse, a bird, a lizard, or a frog. It will even prey upon its own species, when hard driven, as has been clearly proved, by placing two in a box, without a sufficiency of food. We consider that the experiments which were made by the celebrated naturalist, Le Court, have sufficiently proved that the mole is not blind, although there is an imperfection in the development of the visual organ. The mole generally produces four or five young at a time, and even as many as seven have been found in one nest.

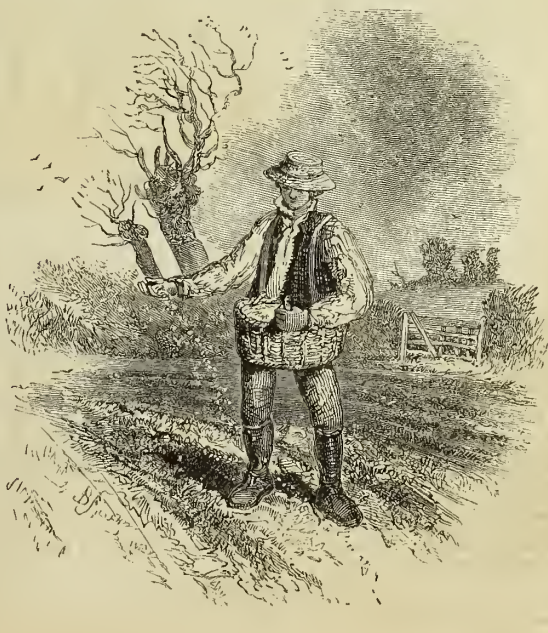
The carrion-crows, which begin to build at the close of this month, vary greatly in their habits from the social-building and gregarious rooks; the former are regular pirates, ever keeping a sharp look-out from the mast-heads of the tall tree-tops, and ready with their great black wings to hoist all sail in a moment, and to give chase to whatever they see passing; for, to use a homely and expressive phrase, there seems nothing either "too hot or too heavy for them." Let either a hawk or a raven attempt to board them, and they will fight to the death; and so high were their pugnacious qualities estimated, when the cruel practice of cock-fighting was in vogue, that trees were often climbed, and the eggs of the carrion-crow taken away, and those of some hen which had been brought up in company with the most celebrated game-cock in the neighbourhood, were left in the nest to be hatched, under the belief that the young cocks thus produced possessed more courage, and proved the best fighters. The carrion-crow, unlike the rook, is a very gross feeder, and will prey upon any offal or decayed animal matter it may chance to alight upon. The wood-pigeon is an early builder, and its slight, open, slovenly nest, is often found with the two white eggs shining through the ill-covered bottom, long before Spring has thrown over the naked branches its garment of green.

The starling is another of our early builders, and the following anecdote related by the Rev. Mr. Sladen, in the "Zoologist," is a strong proof of the reason, or instinct, which this bird possesses:—He states that one built under the eaves of a roof in the basin of a drain pipe, and that the young, in their eagerness to obtain food, fell out of the nest. One was killed; the remaining two he picked up, and placed in a basket covered with netting, which he hung up, near to the nest. The next morning one of these disappeared—the last one he carefully watched, and saw the old bird approach it with food in its bill; but, instead of feeding the little prisoner, she tempted it, by hunger, the sight of the food, and its attempts to reach her,—to struggle, and force its way through the netting, when it fell to the ground unhurt. She then enticed it into a corner of the shrubbery, to the very spot where she had also concealed the other young one, which had before been missed.

There is something very pleasing in looking upon the earliest flowers of Spring, in the snowdrop, the crocus, the first primrose, and the violet, that seem to stand upon the edge of Winter, coming, as it were, with timid and fearful looks, like "unbidden guests," who, instead of receiving a warm welcome, dread being driven over the threshold again by Winter; who sometimes claims to rule as host, although he hath already, in promise, given up possession to the sweeter-tempered Spring. The early flowers of Spring also bring with them sweet and sorrowful recollections; they are fraught with the memories of childhood and youth; they bring promise of brighter days, and we know that for a thousand years they have stood dreaming by the old waysides of England as they do now, for on them Time leaves not his grey foot-mark. The daisy that peeps forth at the end of February is the same, to look upon, as that which Chaucer worshipped, when, nearly five hundred years ago, he went forth, and knelt lowly by its side, to do "observance to the Spring."

Beneath the green mounds which bury the remains of many a grey old abbey, and once-stately castle, the innocent daisy still whitely waves. Time, which has, ages ago, hurled down the holy shrine and the strong battlement, has no power over the humble flower that yet blows above the ruined barbiican and fallen keep. Though he hath levelled many a proud city to the earth, and dug the graves of many a stately temple, yet Spring has again visited the spots he left desolate, and thrown over them a beauty he is not permitted to destroy.

Time came again, and so did Spring;  
The sp. t. once more with flowers was strown;  
Nor could he see a ruined thing,  
So tall and thick the buds had blown.







M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.				HIGH WATER				EQUA- TION OF TIME. Add.	In the Year.
			Rises.	Sets.	DECLINA- TION South.	Rises. Morning.	Souths. Morning.	Sets. Afternoon	Before Sunrise.		Moon's Age.	After Sunset.		AT LONDON BRIDGE.				
									O'Clock.	O'Clock.		O'Clock.	O'Clock.	Morning.	Afternoon			
			H. M.	H. M.	Deg. Min.	H. M.	H. M.	H. M.	2h. 4h. 5h.		7h. 8h. 10h.	H. M.	H. M.	M. S.				
1	W	<i>St. David.</i> Apostle	6 48	5 39	7 25	3 58	8 30	1 6			25			10 10	10 50	12 32	61	
2	Th	<i>Chad</i> [of Wales	6 46	5 40	7 2	4 41	9 23	2 11			26			11 30	No Tide.	12 19	62	
3	F	Aldebaran souths 5h. 40m. P.M.	6 44	5 42	6 39	5 20	10 18	3 23			27			0 5	0 35	12 6	63	
4	S	Capella souths 6h. 15m. P.M.	6 42	5 43	6 16	5 54	11 12	4 40			28			1 0	1 25	11 53	64	
5	S	QUINQUAGESIMA	6 39	5 45	5 53	6 26	Morning.	6 0			29			1 50	2 10	11 39	65	
6	M	SUNDAY. SHROVE SUNDAY	6 37	5 47	5 30	6 57	1 2	7 20			30			2 30	2 50	11 25	66	
7	Tu	Shrove Tues. <i>Per.</i>	6 35	5 49	5 6	7 28	1 57	8 39			31			3 15	3 30	11 11	67	
8	W	Ash Wednesday.	6 33	5 51	4 43	7 59	2 52	9 59			32			3 55	4 15	10 56	68	
9	Th	Lent begins. This is called Ash Wednesday, because formerly, it was the custom for people to appear at church in sackcloth and ashes, in sign of humility and repentance	6 30	5 52	4 19	8 33	3 49	11 16			33			4 35	5 0	10 41	69	
10	F		6 27	5 54	3 56	9 11	4 45	Morning.			34			5 20	5 40	10 25	70	
11	S		6 25	5 56	3 32	9 55	5 41	0 27			35			6 5	6 30	10 9	71	
12	S	1ST SUN. IN LENT.	6 22	5 58	3 9	10 45	6 37	1 31			36			6 55	7 20	9 52	72	
13	M	[ <i>St. Gregory</i>	6 20	5 59	2 45	11 41	7 31	2 29			37			7 55	8 30	9 36	73	
14	Tu	Rigel souths 5h. 37m. P.M.	6 17	6 1	2 22	Afternoon	8 22	3 17			38			9 15	9 55	9 19	74	
15	W	Ember Week	6 15	6 3	1 58	1 44	9 12	3 57			39			10 40	11 20	9 2	75	
16	Th	Sirius souths 6h. 59m. P.M.	6 12	6 5	1 34	2 49	10 0	4 30			40			11 58	No Tide.	8 44	76	
17	F	<i>St. Patrick</i>	6 10	6 7	1 10	3 54	10 45	5 1			41			0 30	0 55	8 27	77	
18	S	Edw. K. of W. Sa	6 8	6 9	0 47	4 58	11 30	5 26			42			1 15	1 40	8 9	78	
19	S	2ND SUN. IN LENT	6 6	6 11	0 23	6 1	Morning.	5 50			43			2 0	2 20	7 51	79	
20	M	Spring Quarter begins. Ver- nal Equinox	6 4	6 13	North.	7 5	0 13	6 14			44			2 35	2 50	7 33	80	
21	Tu	<i>Benedict</i>	6 1	6 14	0 24	8 7	0 56	6 38			45			3 5	3 20	7 14	81	
22	W	Castor souths 7h. 21m. P.M.	5 59	6 16	0 48	9 8	1 39	7 3			46			3 35	3 50	6 56	82	
23	Th	Procyon souths 7h. 26m. P.M.	5 56	6 17	1 12	10 10	2 22	7 28			47			4 10	4 20	6 37	83	
24	F	Pollux souths 7h. 27m. P.M.	5 54	6 19	1 35	11 10	3 7	7 58			48			4 40	4 50	6 19	84	
25	S	<i>Annun.</i> Lady Day	5 52	6 20	1 59	Morning.	3 53	8 23			49			5 10	5 25	6 0	85	
26	S	3RD SUN IN LENT.	5 49	6 22	2 22	0 6	4 40	9 12			50			5 40	6 0	5 42	86	
27	M	[ <i>Pr. Geo. Will. b</i>	5 47	6 23	2 46	0 59	5 29	9 58			51			6 20	6 40	5 23	87	
28	Tu	$\alpha$ Hydre souths 8h. 55m. P.M.	5 44	6 25	3 9	1 49	6 19	10 51			52			7 5	7 30	5 5	88	
29	W	Regulus souths 9h. 30m. P.M.	5 42	6 26	3 33	2 34	7 11	11 51			53			8 5	8 50	4 46	89	
30	Th	$\beta$ Leonis souths 11h. 7m. P.M.	5 40	6 28	3 56	3 14	8 3	Afternoon			54			9 30	10 10	4 28	90	
31	F		5 37	6 30	4 19	3 50	8 56	2 10			55			10 55	11 30	4 10	91	



## MARCH.

THE SUN is in the sign Pisces till the 20th, on which day, at 11h. 16m. A.M., he enters the sign Aries (the Ram), and Spring commences.

On the 1st day he is 94,200,000 miles from the Earth. He rises and sets on the 1st at E. by S. and W. by S. nearly; on the 21st, he rises E., and sets W.; and, on the last day, he rises midway between the E. and E. by N., and sets midway between the W. and W. by N. He souths on the 1st, at 12m. 32s.; on the 15th, at 9m. 2s.; and, on the last day, at 4m. 10s. before noon (common clock time), at an altitude of  $30\frac{1}{2}^\circ$ , on the 1st; of  $36^\circ$  on the 15th; of  $38\frac{1}{2}^\circ$  on the 21st; and of  $42\frac{1}{2}^\circ$  on the last day.

On the 21st day, at 6h. A.M., he is on the Equator. He is eclipsed on the 5th, but it is not visible in England.

The Moon rises between midnight and noon from the 1st to the 13th; between noon and midnight from the 15th to the 25th; and after noon from the 26th. She sets between midnight and noon from the 11th day.

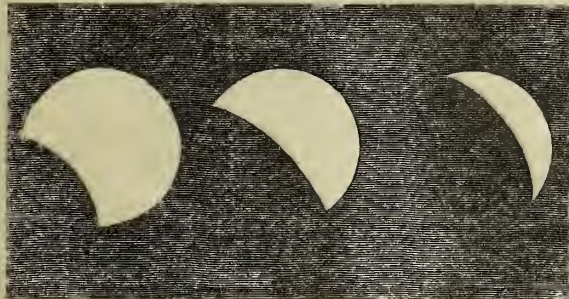
She is near the boundary of Sagittarius on the 1st; in Capricornus on the 2nd; in Aquarius on the 2nd, 3rd, and 4th; in Pisces on the 6th; in Cetus on the 7th; Pisces on the 8th; near Aries and Cetus on the 9th; in Taurus on the 10th, 11th, and 12th; in Gemini on the 13th and 14th; in Cancer on the 15th; in Leo on the 16th, 17th, and 18th; in Virgo on the 19th, 20th, 21st, and 22nd; in Libra on the 23rd and 24th; in Ophiuchus on the 25th and 26th; near both Sagittarius and Aquila on the 27th, 28th, and 29th; in Capricornus on the 30th; and in Aquarius on the 31st.

On the 1st day she is situated  $17^\circ$  S. of the Equator, and souths at  $21^\circ$  above the horizon; she is moving northward; is on the Equator on the 6th, and attains her greatest elevation on the 12th, being  $56^\circ$  above the horizon when she souths; she is on the Equator again on the 19th, and is at her lowest point on the 27th, being  $20^\circ$  altitude when she is due south. She is new on the 5th, and an Eclipse of the Sun takes place, but invisible in England; she is full on the 19th, at which time a total visible Eclipse of the Moon takes place. (See below.)

She is near Venus on the 2nd; Saturn on the 5th; Mercury on the 6th; Mars on the 11th; Jupiter on the 13th.

The Eclipse of the Moon begins at London at 7h. 16m. P.M., and its successive appearances are shown in the accompanying diagrams.

## APPEARANCE OF THE MOON DURING HER ECLIPSE PRECEDING TOTALITY.



At 7h. 32m. P.M.

At 7h. 43m. P.M.

At 8h. 4m. P.M.

At 8h. 21m. P.M. the Moon will be totally obscured; the middle of the Eclipse will be at 9h. 12m., and at 10h. 3m. P.M. she will begin to appear.

The following diagram shows her successive appearances after the total Eclipse. The end of the Eclipse will be at 11h. 8m. P.M. From the preceding account it will be seen that, although the moon is full, she will not shine at all for an hour and forty-two minutes. This fine Eclipse will be visible to the inhabitants of Europe, Asia, and Africa, and to parts of America and Australia.

The following times of the beginning and ending of this Eclipse at various places, expressed in the mean time of each place, may be found useful:—

	H. M.	H. M.
At Altona the Eclipse begins at	7 55 p.m. and ends at	11 48 p.m.
„ Berlin „ „	8 9 „	0 2 a.m. of the 20th.
„ Breslau „ „	8 24 „	0 17 a.m. of the 20th.
„ Copenhagen „ „	8 7 „	at midnight.
„ Dorpat „ „	8 2 „	11 55 p.m.
„ Göttingen „ „	7 55 „	11 48 „
„ Leipsic „ „	8 5 „	11 58 „

## APPEARANCE OF THE MOON DURING HER ECLIPSE, FOLLOWING TOTALITY.



At 10h. 19m. P.M.

At 10h. 35m. P.M.

At 10h. 51m. P.M.

	H. M.	H. M.
At Munich the Eclipse begins at	8 2 P.M. and ends at	11 55 P.M.
„ Padua „ „	8 3 „	11 56 „
„ Paris „ „	7 25 „	11 18 „
„ Petersburg „ „	9 17 „	1 10 A.M. of the 20th.
„ Rome „ „	8 5 „	11 58 P.M.
„ Stockholm „ „	8 28 „	0 21 A.M. of the 20th.
„ Vienna „ „	8 21 „	0 14 A.M. of the 20th.

MERCURY is in the constellation Pisces till the 21st; in Aquarius from the 21st to the 28th; and in Pisces again after the 28th.

He sets on the 1st, at 7h. 22m.; on the 7th, at 6h. 57m.; on the 10th, at 6h. 35m.; and on the 14th, at 5h. 57m.; these times follow that of the Sun setting 1h. 43m.; 1h. 8m.; 0h. 41m.; and 0h. 4m. respectively. He rises on the 15th, at 5h. 48m.; on the 22d, at 5h. 21.; and on the 31st, at 4h. 59m.; and these times precede those of the Sun rising by 27m., 39m., and 40m. respectively. Therefore, the period of time between the 1st and 10th is favourable for observing the Planet after sunset; and the period of time after the 20th is less favourable for observing him before sunrise. Till the 13th he will set near the W. point of the horizon, and at the latter part of the month he will rise near the E. point of the horizon. He is stationary at the beginning, moving westward at the middle, and stationary again among the stars at the end of the month. He is in inferior conjunction with the Sun on the 13th, in the morning. On the 17th, this Planet and Saturn are near together. (See their Right Ascensions below.)

VENUS will be in the constellation of Capricornus till the 16th, and in that of Aquarius from the 17th to the end of the month, and rises near the S.E. by E., on the 1st, at 5h. 29m., A.M.; on the 15th, at 5h. 19m., A.M.; and, on the 31st, at 4h. 57m., A.M.; she souths on the same days respectively, at 9h. 52m., A.M., at 10h. 5m., and at 10h. 17m., A.M., at the altitude of  $20^\circ$  on the 1st;  $24^\circ$  on the 15th; and  $30^\circ$  on the last day. She is near the Moon on the 2nd.

MARS will be in the constellation of Taurus throughout the month. He is an evening star, and sets near the N.W. by N., till the 15th, and midway between N.W. by N. and the N.W., after the 16th; at 1h. 34m., A.M., on the 1st; at 1h. 19m., on the 15th; and at 1h. 4m., on the last day. He souths at an altitude of about  $62^\circ$  during the month; on the 1st, at 5h. 25m., P.M.; on the 15th, at 5h. 2m., P.M.; and on the last day at 4h. 39m., P.M. He is near the Moon on the 11th, and about the middle of the month he is situated a few degrees N. of Aldharan.

JUPITER will be in the constellation Gemini throughout the month. He is visible through the greater part of the night: he rises somewhat before noon, and sets at the N.W. by W. on the 1st, at 4h. 25m., A.M.; on the 15th, at 3h. 31m., A.M.; and on the 31st, at 2h. 32m., A.M.

He souths at an altitude of  $61^\circ$  every day; on the 1st, at 8h. 7m., P.M.; on the 15th, at 7h. 12m., P.M.; and on the 31st, at 6h. 13m., P.M. He is stationary among the stars, being at the same distances from Castor and Pollux as at the end of February till towards the end of the month, at which time his motion is Eastward among them. He is near the Moon on the 13th.

SATURN will be in the constellation Pisces. He sets on the 1st, at 5h. 54m., P.M., being 15 minutes only after the Sun has set; on the 4th, both the Sun and this Planet set at the same time; and from this time to the end of the month, he sets before the Sun. His times of rising precede those of the Sun rising by a few minutes only, so that this month is unfavourable for observing this Planet. He souths on the 15th day, at 11h. 41m. A.M. He is near the Moon on the 5th. His ring has become very small.

## JUPITER'S SATELLITES.

Days of the Month.	Length of Day, or number of hours between Sunrise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Day-break, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.						OCCULTATIONS OF STARS BY THE MOON.				
					Eclipses of						Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.	
					1st Sat.		2nd Sat.		3rd Sat.						
					Emersion.		Emersion.								
H. M.	H. M.	H. M.	H. M.	H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.			
1	10 51	3 6	4 55	7 32											
6	11 10	3 25	4 43	7 40	8 10 50 P. M.	13 0 36 A. M.			111 Tauri	6	12 1 8 A. M.	Dark			
11	11 31	3 46	4 32	7 50					Lambda Geminorum	4½	14 1 49 A. M.	Dark			
16	11 53	4 8	4 21	7 58	16 0 46 A. M.						14 2 20 A. M.	Bright			
21	12 13	4 28	4 7	8 9											
26	12 33	4 48	3 54	8 19	17 7 15 P. M.	15 8 20 P. M.			Omicron Leonis	4	16 6 2 P. M.	Dark			
31	12 53	5 8	3 41	8 30	24 9 10 P. M.	22 9 1 P. M.					16 7 12 P. M.	Bright			
					31 11 5 P. M.	23 0 29 A. M.			m Virginis	5½	21 10 16 P. M.	Bright			
						30 1 2 A. M.					21 11 10 P. M.	Dark			

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Times of Changes of the Moon, and when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.	Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
		North.	South.	North.	South.	North.	South.	North.	South.	North.	South.	North.	South.
NEW MOON	5D. 1H. 17M. P.M.	1 23h. 48m	1° 27'	20h. 29m	18° 55'	4h. 2m	22° 25'	6h. 46m	23° 19'	23h. 8m	7° 35'	1h. 1m	5° 48'
FIRST QUARTER	12 4 41 A.M.	6 23 46	2 11 20	54 17 37	4 14	22 55	6 46	23 20	23 10	7 21	1 2	5 54	
FULL MOON	19 9 11 P.M.	11 23 33	1 0 21	18 16 7	4 26	23 23	6 46	23 20	23 12	7 7	1 3	6 0	
LAST QUARTER	28 1 19 A.M.	16 23 17	1 23 21	43 14 26	4 38	23 48	6 47	23 20	23 14	6 53	1 4	6 7	
PERIGEE	7 1 A.M.	21 23 5	3 50 22	6 12 34	4 50	24 9	6 47	23 19	23 17	6 39	1 5	6 13	
APOGEE	22 2 P.M.	26 23 3	5 31 22	30 10 34	5 2	24 27	6 49	23 18	23 19	6 25	1 6	6 19	





Daffodils that come before the swallow dares, and take  
The winds of March with beauty; violets, dim,  
But sweeter than the lids of Juno's eyes,  
Or Cytherea's breath

SHAKSPEARE.

MARCH is the first month that treads upon the flowery border of Spring; it is the beginning of that sunny season which again brings back the birds to our green old English woods, and calls forth the sweet buds from their hiding-places in wayside banks and upland leas, hedge-girded lanes and broad sweeps of meadow land; where the lambs are already trampling upon the daisies, while high above the lark "at Heaven's gate sings." What a burst of music will there, ere long, be in the groves and copses! What a variety of "silver-throated singers" are already on their way to join the great Spring-band, whose melody will awaken the echoes of our flower-haunted woods! For now we may exclaim with Solomon, "The Winter is past—the rain is over and gone—the flowers appear on the earth: the time of the singing of birds is come, and the voice of the turtle is heard in our land."

How cheering to hear neighbour greet neighbour, over the little garden-fence, as they exclaim, "Oh! what a lovely Spring-day this is!" To walk forth and hear the gentle murmur of the bee, and to see it settling among the few early flowers which have already opened! To notice the green leaves growing longer and broader every day! and, while the village clock is chiming six, to see the red round sun rising up above the green-shouldered hill! The very streams seem as if they had broken forth into song, and were in haste to tell every flower that is asleep upon their banks, it is time to awaken—that birds are building in the bushes they have hurried past—and the small fry chasing each other around the smooth pebbles they have murmured over.

The dry winds of March come strong and thirsty, and drink up the dregs which Winter has left in the cup. But for the brisk breezes which accompany this month, many of the seeds and roots that have remained in the earth would decay and rot; and the buds, if not hardened by the nipping blast, would blow before they had retained a firm and deep hold upon the stem. If the weather is mild, the elder, in favourable situations, will by the end of the month be covered with leaves, and wear quite a green and summer-like livery; and under the shaded hedge-row the golden celandine will be found in flower, beside that modest nun, the pale-faced primrose, the smell of which is so faint, though sweet, that it is, perhaps, the most delicate fragrance of all the flowers. Under their canopy of broad rounded leaves the violets are also discovered, betraying themselves by their own pleasant smell, which every vagrant breeze seems to delight in exposing—as if the wind had but little more to do than blow aside the old withered leaves, and carry away the healthy perfume. Although these flowers generally blow not until April, yet they may often be found at the close of a mild March month. The anemone, too, that bows its beautiful silver-grey bell to every breeze, and the leaf of which is of the most exquisite form, now carpets the woodland; and no further off from London than the wood above Dulwich, it may be found in countless thousands. Equally near to the great Metropolis of England, the wild blue-bell waves and grows; and children may be seen, about the lanes near Camberwell, returning with handfuls of these early flowers, which they have travelled no far-



ther than the end of Lordship-lane to gather—but little more than an hour's journey, for a good walker, from the busy stir of Chapside.

Now the forests ring with the heavy blows of the woodcutter's axe, and the bark-peelers are busy at work; and from the chips, the bark, the saw-dust, and the rising sap, there comes streaming upon the air the most healthy and cheering aroma that floats over the earth. It neither resembles a bed of flowers nor a hay-field, nor can it ever be inhaled anywhere but in the woods where such healthy labour is carried on. There is something very primitive and picturesque in this forest labour—we can imagine no employment more ancient—from the time when the first early settlers, the old Cynari of Britain, landed upon our island, and called it "The Country of the Sea Cliff," hewed down the trees, and built themselves rude huts in the gloomy old woods, which the wolf, the wild boar, the maned bison, and the antlered stag, had hitherto inhabited;—even from that remote period may the occupation of the woodman be dated. We watch him at his work, and see the giant oak, that will ere long bear the thunder of the British cannon to some foreign shore, fall prostrate with an awful crash—loud enough to startle every Dryad, that

Haunted spring and vale, edg'd with poplar pale,  
With flower inwoven, tresses torn,  
In twilight shades of tangled thickets mourn.

Nor is it possible for a healthy man to inhale this delightful aroma, or watch these hardy foresters at their work, without feeling almost as strong a temptation as they do, to taste the contents of their baskets, and drink from the huge stone-bottles which they are ever lifting up, with bare, brawny arms, to their lips; for in such scenes as these, wholesome and homely hunger is to be found.

While rambling through the woods in a fine sunny day, at this season of the year, the snake may often be seen, basking on some dry warm bank, having quitted its Winter quarters, and come out from among the dead leaves, or the roots of the tree under which it had so long slept. It will, however, generally be found in the neighbourhood of a water-course; and woe be to the mice, birds, or lizards that first fall in its way, after so long a fast! The snake is an expert swimmer, carrying its head beautifully erect, as it glides rapidly through the water, easy as an eel. The skin which it casts off may sometimes be found turned inside out, among the thorns of a furze-bush, or in the entangling brambles of the underwood. The viper, which is the only venomous reptile that is found in our English forests, is not so common as the snake; and, when met with, is always in a hurry to escape. It is a question open to much doubt, whether any one ever yet died through the bite of a viper:—if a small portion of ammonia is swallowed, and the wound rubbed over with oil, there is but little to be dreaded from the fangs of this reptile.

Amid all the pleasant out-of-door pictures which the hand of Spring produces, not one excels that of a daisied field, in which is seen the 'snow-white lambs at play. There is such a Spring-sound about their bleating!—it is much more plaintive and innocent than the deep baa they give utterance to in the height of Summer. How amusing to watch some little long-legged woolly fellow, that has lost his dam! How like a child he acts, that has missed its mother, running here and there, with a low plaintive cry, and not even hearing, for the noise he himself makes, the distant answer of the old sheep, who is calling to him in the best way she can to come to her! The instinct, or reason of these "silly sheep," as we are apt to call them, is wonderful; and I cannot resist quoting an instance in proof of it, as it comes from such high authority as the "Magazine of Natural History."—"I observed a young lamb," says the writer, "entangled among briars. It had, seemingly, struggled for liberty until it was quite exhausted. Its mother was present, endeavouring with her head and feet to disengage it. After having attempted in vain, for a long time, to effect this purpose, she left it, and ran away baaing with all her might. We fancied there was something peculiarly doleful in her voice. Thus she proceeded across three large fields, and through four strong hedges, until she came to a flock of sheep. From not having been able to follow her, I could not watch her motions when with them. However, she left them in about five minutes, accompanied by a large ram that had two powerful horns. They returned speedily to the poor lamb, and as soon as they reached it, the ram immediately set about liberating it, which he did in a few minutes, by dragging away the briars with his horns." A stronger proof of sheep possessing reason was never adduced than this: it must have been something more than mere instinct that urged the poor dam to force her way through four strong hedges. But the most wonderful of all consists in communicating her distress to the ram, and bringing him back with her. What human mother could have done more, after having endeavoured, but in vain, by her own exertions, to rescue her child from danger?

Bloomfield, after giving a beautiful picture of young lambs trying their speed with each other, down the slope and up the hillock, describes them as stopping to gather breath for a few moments, yet so eager to pursue their play, that—

A bird, a leaf, will set them off again;  
Or if a gale with strength unusual blow,  
Scattering the wild-brier roses into snow,  
Their little limbs increasing efforts try."

There are few places in England that wear a more delightful appearance than the meadows near Nottingham at this season of the year, many acres of which are covered with the lilac crocus; and there are, I believe, but few spots in our island, where this early spring flower is found wild in such profusion. And it is a pleasant sight to see the little children "toddlu" from the meadows, with their wicker baskets filled with crocuses and daisies, or to watch their actions while gathering them—how one will throw itself full-length among the flowers, and stretching out its little hands, attempt at once to grasp all that are within its reach; while another, equally happy, with its long hair blown back, sits apart, singing to itself, and strewing the lilac petals about its feet in very wantonness. In a wood, near this neighbourhood, primroses were found in flower on New Year's Day, by one of those humble poets, who goes "crooning to himself" by rural hedgerows and greenwood sides; and the beautiful thought awakened by the discovery of these early daughters of Spring, huddled together in the lap of Winter, must be our apology for introducing the following eight lines, written on the occasion by Samuel Plumb, of Carlton:—

Old Winter came with fierce destructive sweep,  
And shook the woods, and turned the green leaves sear,  
When, as if wearied in his wild career,  
He paused awhile, and couchant seemed to sleep:  
Forth from a southern covert, warm and deep,  
Came Spring, and looked upon his front austere,  
And lightly slept about like one in fear;  
And where she trod, the flowers began to peep.

The poet concludes his beautiful sonnet, by stating that he took up the flowers and gave them to a fond and sorrowful mother, who planted them over the grave of a beloved child.

What a different appearance the lanes and highways now present to that which we pictured in January. You see the ploughboy seated sideways on the well-fed horse, the harness jingling at every step, as with the whip drooping idly over his shoulder, and his napless hat placed jauntily aside, he whistles and sings, alternately, some rustic lay, about the "Jolly Ploughboy, who wouldn't be a

King." You see the little butcher-boy in his blue frock, followed by his dog, a villainous-looking mongrel; now urging on the three or four lambs he has driven from the white farm house in the valley; now pausing to peep into the hedge to see if he can discover the nest of a hedge-sparrow; anon, giving a whoop and a hallo, which is often accompanied by a heavy stone, hurled with all his might, at the flock of rooks who are busy breakfasting in the ploughed field. The carrier's grey tilted cart comes rocking slowly along between the budding hedge rows, and you see the village dame seated in front, carrying to the next town her little produce of new-laid eggs and home-made butter, and calculating to herself, how long it will be before she travels on the same road with her baskets heavily laden with the first fruits of her carefully tended garden.

The wren, a beautifully marked bird, may frequently be seen at the end of this month busily foraging for food, amongst the ant-hills, but starting off, the moment it perceives any one approaching, and concealing itself in the bottom of the nearest hedge or ditch until they have passed. It procures its food by thrusting its long glutinous tongue into the ant-hill, and to this the insects instantly adhere and are easily and greedily swallowed. The little willow-wren, hay-bird, or ground-wren, as it is called in different parts of England, also makes its appearance about this period. It builds a domed nest, leaving a small opening near the top by which to enter. It lays from six to seven small white eggs spotted with dusky pink at the larger end. This beautiful nest is composed of moss and dried grass, wearing outwardly a neat oval shape, while the inside is carefully lined with the softest feathers. It generally builds in the hole of a bank or at the foot of a tree or bush, often under the hollow roots, and sometimes, though we believe very rarely, its nest is found in a low bush. Chafflucches, which remain with us all the year, may now be seen in the fields where the sower has cast his seed. In sheep-walks and dry uplands the stone-curlew is busily engaged looking for insects and worms; this bird builds no nest, but lays its two light-brown coloured and blotchy eggs upon the bare ground, generally in fields that abound with stones, or grey mossy flints, which, bearing a close resemblance in colour to its young ones, are of great use in protecting them from danger.

To a lover of nature it is an agreeable study to watch the habits of birds, to note down, like Gilbert White, or Selborne, their incomings and outgoings, beginning with the date of when they first appear in Spring, and are last seen before their departure in Autumn. From the earliest ages, have the migration of birds attracted the attention of man. We find the turtle, the swallow, the crane, and the stork mentioned in the Holy Bible, in the book of Jeremiah, as "observing the time of their coming," and Solomon marks the seasons by the return of the singing of birds. Some come to build and bring forth their young—they then depart until the following Spring—others visit us in the Winter, and as the fine weather approaches disappear, "each knowing their appointed time." The swift seldom stays with us longer than while its young ones are enabled to fly well—the swallow has been known to leave a late brood to perish in the nest when they have not been ready for migration, so strong has been the impulse in the parent-bird to depart. Without being beholden to man for either food or home, without any preparation, saving the momentary act of spreading out their wings, they set out, and return from their long journeys—pass over mountains and seas, cheer us by their songs and delight us by their beauty, yet ask for no return from our hands. They are at once the inhabitants of the earth, the air, and the water, having all the elements at their command, without the incumbrance of that heavy machinery which man is compelled to have recourse to. In their songs we discover the sounds which indicate sorrow and delight, love and melancholy, the low sad wailing of grief, and that happy gladness of the heart which seems ready to burst forth for every joyousness—such emotions do these "little angels of the trees" awaken in susceptible hearts. For our part, we should almost as soon think of shooting at a little child as if it sat singing to itself, and playing with the lapful of flowers it had gathered, as we should at a sweet song-bird perched upon a spray, and filling the wide green valleys with its silver music. Listen to what an old poet, who was contemporary with rare Ben Jonson, has said of the delight he felt in listening to the lays of these little choristers. He was wandering beside a river, and fancied that the first bird he heard was chiding the ripples for the murmuring sound they made, which seemed to drown the echo of his own sweet song, when

There seemed another in his song to tell,  
That what the fair stream said he liked well;  
And going further heard another too  
All varying still in what the others do;  
A little thence, a fourth, with little pain  
Conned all their lessons, and then sung again;

So numberless the songsters are that sing  
In the sweet groves of the too careless Spring,  
That I no sooner could the hearing lose  
Of one of them, but straight another rose,  
And perching deftly on a quaking spray  
Nigh tired herself, to make her hearer stay.

—Browne's *Britannia's Pastorals*.







M	D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.				HIGH WATER		EQUA- TION OF TIME.	Day of the Year
			Rises.	Sets.	DECLINA- TION NORTH.	Rises. Morning.	SOUTH. Morning.	Sets. Afternoon.	Before Sunrise O'Clock. 2h. 3h. 4h.	Moon's Age.	After Sunset O'Clock. 8h. 9h. 10h.	AT LONDON BRIDGE. Morning. Afternoon.	Add.			
1	S	All Fools day	5 36	6 33	4 42	4 23	9 50	3 29							3 52	92
2	S	4TH SUN. IN LENT	5 34	6 35	5 5	4 51	10 44	4 58							3 33	93
3	M	Richard, Bishop of Chiches- ter	5 32	6 37	5 28	5 29	11 40	6 9							3 16	94
4	Tu	St. Ambrose	5 29	6 38	5 51	5 55	Afternoon	7 32							2 58	95
5	W	Sirius souths 5h. 41m. P.M.	5 27	6 39	6 14	6 28	1 34	8 53							2 40	96
6	Th	Old Lady Day	5 25	6 41	6 37	7 5	2 32	10 9							2 23	97
7	F	Castor souths 6h 20m. P.M.	5 23	6 42	6 59	7 48	3 31	11 19							2 6	98
8	S	Procyon souths 6h. 23m. P.M.	5 22	6 44	7 22	8 39	4 29	Morning.							1 49	99
9	S	5TH SUN. IN LENT	5 20	6 46	7 44	9 33	5 25	0 21							1 32	100
10	M	Pollux souths 6h. 18m. P.M.	5 18	6 47	8 6	10 34	6 19	1 13							1 15	101
11	Tu	Regulus souths 8h. 40m. P.M.	5 16	6 49	8 28	11 36	7 10	1 58							0 59	102
12	W	β Leonis souths 10h. 16m. P.M.	5 13	6 50	8 50	Afternoon	7 58	2 34							0 43	103
13	Th	Spica Virginis souths 11h. 48m. P.M.	5 10	6 52	9 12	1 46	8 44	3 5							0 27	104
14	F	Camb. Term ends	5 7	6 54	9 33	2 51	9 28	3 33							0 12	105
15	S	Easter fern begins. Oxford Term ends	5 5	6 55	9 55	3 53	10 11	3 56							0 17	106
16	S	PALM SUNDAY, OR	5 3	6 57	10 16	4 56	10 54	4 19							0 18	107
17	M	Passion Sunday—the first day of Passion Week	5 1	6 58	10 37	5 59	11 37	4 44							0 32	108
18	Tu		4 59	7 0	10 58	7 1	Morning.	5 7							0 46	109
19	W	St. Alphege.	4 57	7 2	11 19	8 3	0 20	5 34							0 59	110
20	Th	Maundy Thursday	4 55	7 3	11 40	9 3	1 4	6 0							1 13	111
21	F	Good Friday. This	4 53	7 5	12 0	10 0	1 50	6 32							1 25	112
22	S	day has always been held as a day of solemn fast by Christians	4 51	7 6	12 20	10 55	2 37	7 1							1 38	113
23	S	EASTER SUNDAY	4 49	7 8	12 40	11 45	3 25	7 54							1 42	114
24	M	Easter Monday	4 47	7 10	13 0	Morning.	4 14	8 4							2 1	115
25	Tu	Easter Tuesday.	4 45	7 11	13 19	0 31	5 4	9 40							2 11	116
26	W	[St Mark, Duchess Glouc. b. Princess Alice M. M. born	4 43	7 13	13 39	1 12	5 55	10 4							2 29	117
27	Th	Arcturus souths 11h. 48m. P.M.	4 41	7 14	13 58	1 48	6 46	11 51							2 31	118
28	F	Length of day 14h. 37m.	4 39	7 16	14 17	2 20	7 38	Afternoon							2 41	119
29	S	Length of night 9h 47m.	4 37	7 18	14 35	2 51	8 30	2 21							2 49	120
30	S	LOW SUNDAY	4 35	7 20	14 54	3 21	9 23	3 29							2 58	121



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## APRIL.

THE SUN is in the sign Aries till the 19th, on which day, at 11h. 28m. P.M., he enters the sign Taurus (the Bull).

On the 1st, he is 95,020,000 miles from the Earth. He rises on the 1st, 5° S. of E. by N., and sets 5° S. of W. by N.; on the 8th, he rises E. by N., and sets W. by N.; and on the 28th, he rises E.N.E., and sets W.N.W.

He souths on the 1st, at 3m. 52s. after noon; on the 14th, at 12s. after noon; on the 15th, at 8s. before noon; and on the last day, at 2m. 58s. before noon; at an altitude of 43° on the 1st; of 48° on the 15th; and of 53° on the last day.

On the 3rd he is eclipsed, but the eclipse is not visible in England. The Moon rises between 4h. A.M. and noon, from the 1st to the 11th; between noon and midnight, from the 13th to the 23rd; and after noon, from the 25th. She sets between 3h. P.M. and midnight, from the 1st to the 7th; and between midnight and noon, between the 9th and the 27th.

She is in Aquarius on the 1st; in Pisces on the 2nd; Cetus on the 3rd; Pisces on the 4th; Cetus and Aries on the 5th and 6th; Taurus on the 7th and 8th; Gemini on the 9th and 10th; Cancer on the 11th and 12th; Leo on the 13th, 14th, and 15th; Virgo on the 16th, 17th, and 18th; Libra on the 19th and 20th; Ophiuchus on the 21st, 22nd, and 23rd; near Sagittarius and Aquila on the 24th and 25th; Capricornus on the 26th; Aquarius on the 27th and 28th; Aquarius and Pisces on the 29th; and Cetus on the 30th.

On the 20d she is on the Equator; attains her greatest elevation on the 9th, at which time she is at 56° altitude, when due south; is on the Equator again on the 16th, moving S.; and is at her lowest point on the 23rd, passing the meridian at 20° above the horizon; and she is a third time on the Equator on the last day.

She is new on the 3rd; and an eclipse of the Sun takes place, but invisible here; she is full on the 18th, but without an eclipse.

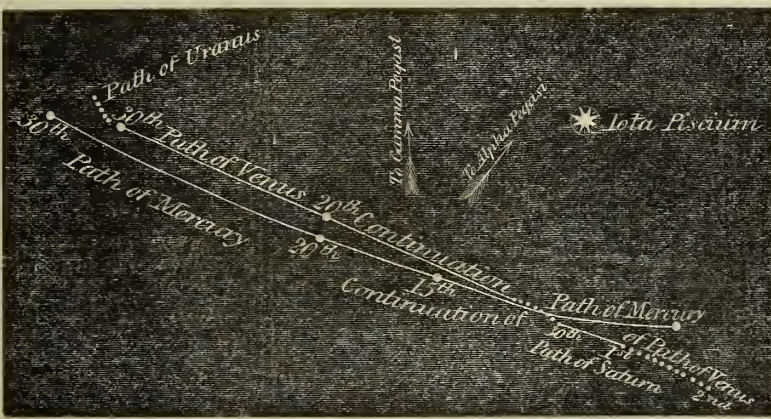
She is near Venus on the 1st; Mercury and Saturn on the 2nd; Uranus on the 4th; Mars on the 8th; Jupiter on the 10th; and Saturn on the 29th.

MERCURY, from the 1st to the 17th, is in the constellation of Pisces; between the 17th and the 27th, in that of Cetus; and in Pisces again, after the 27th.

He rises nearly due E. throughout the month; on the 1st, at 4h. 57m.; on the 15th, at 4h. 35m.; and on the 30th, at 4h. 12m.; and these times are respectively 39m., 30m., and 23m., before the times of the Sun rising. The month is not favourable for observing him. He is moving Eastward among the stars; and is at his greatest W. elongation on the 9th.

The Planets Mercury, Venus, and Saturn are near together on the 5th, 6th, 7th, 8th, 9th; and the two former continue together all the month, and on the 28th are near Uranus. These Planets may be seen rising near the East, shortly before Sunrise; and their relative positions and motions are shown in the annexed cut.

PATH OF MERCURY, VENUS, SATURN AND URANUS IN APRIL, 1848



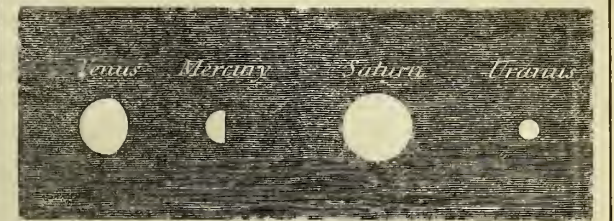
VENUS will be in the constellation Aquarius on the 1st and 2nd; in that of Pisces, from the 3rd to the 18th; and in Pisces and Cetus, alternately, from the 18th to the end of the month.

She is a morning star, and rises nearly East, at 4h. 55m., on the 1st; at

4h. 30m., on the 15th; and at 4h. 2m., on the 30th. She souths on the 1st, at 10h. 18m. A.M.; on the 15th, at 10h. 26m. A.M.; and on the 30th, at 10h. 35m. A.M., at the altitude of 31° on the 1st; of 37° on the 15th; and of 43° on the last day. She is near the Moon on the 1st, and Mercury on the 7th; and Mercury and Venus continue near each other during the remainder of the month. (See Mercury, above.)

The telescopic appearance of the Planets, whose paths are represented above, during this month, are exhibited in the following engraving.

TELESCOPIC APPEARANCE OF PLANETS IN APRIL 1848.



MARS will be in the constellation of Taurus till the 15th, and in that of Gemini from the 16th to the end of the month.

He is an evening star, and sets midway between the N.W. by N. and the N.W., on the 1st, at 1h. 5m. A.M.; on the 15th, at 0h. 47m. A.M.; and on the 30th, at 0h. 26m. A.M. He souths on the 1st, at 4h. 38m. P.M., at an altitude of 63°; on the 15th, at 4h. 18m., at an altitude of 65½°; and about this time he attains his greatest North declination during the year (See below); and, therefore, this meridian altitude is the greatest during the year. He souths on the 30th, at 3h. 58m. P.M., at the altitude of 63°. He is near the Moon on the 8th, and he is crossing the Milky Way during the month.

JUPITER will be in the constellation Gemini throughout the month. He is an evening star, and sets at the N.W. by W. on the 1st, at 2h. 28m. A.M.; on the 15th, at 1h. 39m. A.M.; and on the 30th, at 0h. 47m. A.M.; he rises at about the middle of the month, at about 9h. A.M.

He souths at an altitude of about 61° every day; on the 1st, at 6h. 10m. P.M.; on the 15th, at 5h. 20m. P.M.; and on the 30th, at 4h. 30m. P.M.

The motion of the planet among the stars is slowly Eastward, and he is moving towards Castor and Pollux. He is near the Moon on the 10th. The Planet Mars is situated some distance to the right of Jupiter.

SATURN will be in the constellation Pisces. He is visible for a short time before the Sun rises. He rises midway between the E. and E. by S. on every day; on the 1st at 5h. 10m. A.M.; on the 15th, at 4h. 18m. A.M.; and on the 30th, at 3h. 21m. A.M. He souths on the 15th day at 11h. 53m. A.M.; and sets at about 3h. P.M. He is near the Moon on the 2nd. During this month the ring of Saturn becomes invisible, and continues so till the end of the year, with a very slight exception about the beginning of September. The intersection of the plane of the ring, and of the Ecliptic, is in 170° and 350° of longitude and consequently the ring lessens when Saturn is near either of these points. In this year the longitude of Saturn is 350° on the 20th of July. On the 22nd of April the plane of the ring of Saturn will pass through the centre of the Earth, or, in other words, we are looking at the edge of the ring only, and it is invisible to us. (See the ILLUSTRATED LONDON ALMANACK for the year 1846, in the month of October.)

Uranus during this month rises, souths, and sets, very nearly at the same times as the Sun, and therefore he cannot be seen.

THE MOON.—In consequence of the rotation of the Moon on her axis, the changes in her appearance are very rapid; in the course of a few hours, brilliant points, or islands of light in the dark part of the Moon, become extended chains of mountains, or ranges of lofty hills. These changes are perpetually progressing, and it is highly improbable that any two persons, unless in company, would obtain exactly the same view of any particular region of the Moon. Her best views may be obtained when she is between five and twelve days old.

TIMES OF CHANGES OF THE MOON,					JUPITER'S SATELLITES.					OCCULTATIONS OF STARS BY THE MOON.				
Days of the Month.	Length of Day, or number of hours between Sunrise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Daybreak, or beginning of Twilight.	Time of Twilight ending.	Eclipses of				Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.		
					1st Sat.		3rd Sat.							
					Emersion.		Emersion.							
1	H. M.	H. M.	H. M.	H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	z Leonis	6	n. h. m.	Dark		
6	12 57	5 12	3 38	8 32	16 9 25 P. M.	27 8 23 P. M.					13 10 17 P. M.	Bright		
11	13 16	5 31	3 23	8 43					Theta Libræ	4½	13 11 10 P. M.	Bright		
16	13 33	5 48	3 8	8 55	23 11 21 P. M.		4th Sat.		Rho 1 Sagittarii	5	21 0 10 A. M.	Dark		
21	13 54	6 9	2 53	9 8							21 1 20 A. M.	Bright		
26	14 12	6 27	2 37	9 22	2nd Sat.	4 9 55 P. M.					25 1 38 A. M.	Dark		
30	14 30	6 45	2 21	9 35	6 9 42 P. M.						25 2 40 A. M.			
	14 45	7 0	2 7	9 50	14 0 18 A. M.									

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.													
Days of the Month.	MERCURY		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		
	Right Ascension	Declination South North	Right Ascension	Declination South North	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.	
NEW MOON .. ..	3d. 11h. 1m P.M.	1 23h. 10m	6° 10'	22b. 58m	8° 0'	5h. 18m	24° 44'	6h. 51m	23° 16'	23h. 22m	6° 9'	1h. 7m	6° 27'
FIRST QUARTER ..	10 2 50 P.M.	6 22 24	5 41	23 20	5 45	5 30	24 54	6 52	23 14	23 24	5 57	1 8	6 34
FULL MOON .. ..	18 2 31 P.M.	11 23 42	4 23	23 43	3 26	5 43	25 0	6 55	23 11	23 26	5 44	1 9	6 40
LAST QUARTER...	26 2 20 P.M.	16 0 4	2 24	0 6	1 5	5 56	25 9	6 57	23 8	23 28	5 31	1 10	6 47
PERIGEE .. .. .	4 10 A.M.	21 0 29	0 9N	0 28	1 18N	6 9	25 0	7 0	23 5	23 30	5 20	1 11	6 53
APOGEE .. .. .	18 7 P.M.	26 0 57	3 13	0 51	3 41	6 22	24 55	7 3	23 1	23 32	5 8	1 12	7 0





Cuckoo—cuckoo—ah, well I know thy note,  
That far-off sound the backward years doth bring  
Like Memory's lock'd-up bark, once more afloat,  
It carries me away to life's glad spring—  
To home with all its green boughs rustling.—*Summer Morning*

Upon the daisied green of April Spring hath at last planted her sunny east, and many a sweet flower has stepped forth to form a couch for her fair form to recline upon. The leaves have grown longer to shelter her from the silver-footed showers, and many a bird that had made its home in a foreign land, has returned to welcome her with its song. Her eyes are blue as her own April skies; her cheeks dyed with the delicate crimson of apple-blossoms; her white and bine-veined neck, beautiful as a bed of lilies-of-the-valley, intersected with blowing violets, while her silken hair streams out like her own acacias, that throw their gold and green upon the breeze. Around her brow is twined a wreath of May-blossoms—pearly buds, but yet unblown. High above her head the sky-lark soars; in the lowly brske the linnnet warbles; from the tall tree tops a hundred birds are singing; and she comes with music above, below, and around her. The primrose-coloured sky, the insects that hum and wanton in the air, the flowers that rise above the bladed grass, the bursting buds that are daily peeping out among the trees, all proclaim that Spring is come again.

But high above all, is heard one voice, that which the little child with its hand over its innocent forehead, to shade off the sunshine, endeavours to mock; and every hill, and wood, and vale, and river, rings out, loud and clear, like the tone

of a silver bell, the piercing note o. the Cuckoo. The school-boy loiters on his way, and forgets his hard task, while he tries to imitate her voice; and grey-headed old men, bow-bent with age, uplift their wrinkled hands to their dull ears and listen to her song. Even the superstitious old grandam thrusts her hand into her huge, patched pocket, when first she hears that sound, and presses the silver coin between her fingers that she may have good luck all the rest of the year. Let us not seek to stir a leaf in that dim grove, which is hung with these old twilight superstitions.

Now is the time for the angler to be up and out by the breezy river-sides, where the tall green willows are ever swaying to and fro, and the shadows of the trees quiver and twinkle in the water, while the sunshine streams down through the network of half-expanded leaves, and chequers the ripples below, with ever-moving shadows of dusky purple and molten gold. Far out, beyond the rapid eddies, may ever be heard the fish rising and falling with a solemn plunge, and forming circles upon the water that lengthen and broaden, until the remote ripples of the expanded ring break upon the reedy shore. What numbers of calm nooks that lie like sleeping mirrors, may be found on a clear April morning between the bending embankments, at the corners of jetties, on the little table-land with



its solitary tree, which, but for its narrow neck, fieldward, would be an island, and by the deep, precipitous sides of which, the largest of the finny tribe love to shelter. Dark, cloudy pools, which the perch, the carp, and the roach frequent; haunts of the chub and barbel, and broadsided bream, whose very names call up pictures of bridges, and mill-pools, and sluices, and grey old flood-gates, opening under gloomy arches, where the long-jawed and strong-bodied pike loves to lie in wait for its prey. Of all out-of-door sports, angling is the pleasantest; if weary, there is the pleasant bank to sit down upon; the clear river to look over; the fresh breeze ever blowing about one's face; the arrowy flight of the water-loving swallow to watch; in short, all the lazy luxuries to be found together that throw such a charm around open-air amusements. Fly-fishing, it is true, leaves the angler but little time to dream; but where the old-fashioned, well-weighted float stood perpendicular, for nearly the whole hour together—where no bite came to drag it down, nor any current to carry it away, but still, calm, and motionless it stood, excepting when the breeze just stirred the slender line—there was nothing left but to gaze upon the sunny sky, the calm water, and the outstretched landscape: to think of Isaac Walton, the milkmaid, the draught of red cow's milk, his shelter under the honeysuckle hedge while it rained, his breakfast of powdered beef and radish, the fish he ate that was fried in cow-slips, the room he slept in, that smelt so sweetly of lavender, and the flowers, which he said were too pleasant to look upon, excepting on holidays. No other amusement left while fishing in such a spot, but to call before the eye the image of that happy-hearted old angler, or to hum a verse of that joyous old song which he composed, entitled "The Angler's Wish," beginning with—

I in these flowery meads would be,  
These crystal streams should solace me;  
To whose harmonious bubbling noise,  
I with my angle would rejoice.

By the end of this month, many of the trees will be in leaf; the elm will have put on its green and graceful garment, and the oak be covered with its new foliage, whose bright red hue looks not unlike the decaying tints of Autumn. The beech, which has been called the loveliest of all forest-trees, begins to show its sprays tinged with brownish purple, and the chestnut to open its fan-like sheath; while in almost every garden the dim green leaves of the lilac are outspread, and on the ends of the boughs we can see the forms of the up-turned flowers; while over all, the emerald softness of the lime throws its shadow of tenderness green. But of all my forest favourites, for grace and beauty, for most stands the lady-like birch; although it possesses not the massy grandeur of the oak, nor the tall stately majesty of the elm, there is something so delicate in its slender sprays, in the brown and silver of its stem, and, above all, in the neatness of its foliage, that I marvel our artists do not place it oftener in their quiet pastoral landscapes. Now, the hedges are covered by the milk-white blossoms of the blackthorn, and the fruit trees in orchards and gardens are laden with loads of beautiful blossoms—the apple trees looking as if Herrick's Parliament of Roses and Lilies had assembled upon the boughs. Over the cottage porches we also see the dark leaves of the honeysuckle trailing. Whichever way we turn the eye, we behold the Earth attiring herself in beauty, and from head to foot robing herself with leaves and flowers. 'Tis as if Nature called upon man to quit his walled cities and visit her sequestered haunts—to come where the buds blow and the bees murmur, and the birds are never weary of pouring forth their music; to where Imagination listens—

Attentive, in his airy mood,  
To every murmur of the wood;  
The bee in yonder flowery nook,  
The chidings of the headlong brook.

The green leaf shivering in the gale,  
The warbling hills, the lowing vale,  
The distant woodman's echoing stroke,  
The thunder of the falling oak.—MILTON.

Delightful is it now to wander forth, like Solomon of old, "into the fields, or to lodge in the villages, to see the fruits of the valley, and to go forth into the gardens to gather lilies;" and, like the wise king of Israel, whose words we have here quoted, to make ourselves acquainted with all the green and living wonders of Spring. What a bleating is there now amongst the sheep along the uplands! What a delicious aroma do we inhale during a woodland walk, where the crisped leaves of the hazel overhang the pathway, and the banks, "painted with delight," are gaudy with the pale gold of the primrose and the deep-dyed azure of the blue-bell! Pleasant is it to wander amid lanes that lead nowhere, except into fields, or to the entrance of some dreamy old wood, beyond which green hills arise, whose boundary seems the sky. Fast little sheets of water, which seem only made for the yellow flags and bulrushes to grow in, and which Nature with her own hand has dug there, for the birds that inhabit the woods to drink of, when they are athirst; and in these sequestered haunts you sometimes startle the black water-hen; or, if it be later in the season, you see her floating about at the head of her dusky and downy young ones, or you hear the deep splash of the water-rat, which you have frightened from his banquet, as he was swimming round and round the broken branch that dips into the pool, and nibbling a leaf here and there, just at it pleased his dainty fancy.

Now white and copper butterflies make their appearance; the emperor moth may also be seen, and the dull, low, jarring note of the mole cricket heard. The saw fly, the dread and terror of all gooseberry growers, awakens from its Winter sleep, and commences its work of destruction. Many are the beautiful names given to the butterflies and moths in the Midland Counties; such as the tortoise-shell, the primrose-coloured, the green-veined; and, amongst moths, the winter-beauty, the cross-wing, the oak-beauty, orange under-wing, garden-carpet, brindled-beauty, red-chestnut, angle-shaded, the triple-spot, the fox-moth, and numberless others, whose very names suggest pleasant thoughts, now begin to flutter about in the sunny days and warm evenings that come in with the close of April. The wood-ant makes its appearance this month: it is the largest of our British ants, and is readily distinguished from the others by the rich brown with which it is marked in the middle. Their nests are frequently found in the woods around London; and, though at first you would fancy the rounded nest was only a heap of loose litter, yet, on a closer examination, you will see it is regularly formed, and admirably adapted for carrying off the rain, and on a fine day the roof will be found all alive with busy workers. Every avenue which leads to the nest is securely closed at night, and opened again on the following morning, excepting on rainy days, when they remain within their covered habitations, and never stir abroad. If the avenues are only partially opened in the morning, it is a sure sign that there will be rain in the course of the day, for there is scarcely a more unerring indicator of the weather than may be found in watching the motions of the wood-ant.

The "household-loving swallow" has again returned, and, with the first dawn of day, we hear its cheerful twitter upon the eaves; and, however early we may set out to angle, there it is, darting through the arches of the bridge, and skimming over the water, as if its whole life was one continued holiday. Still, it is one of the most industrious of birds. By daylight it begins to build its nest, and often before the indolent slug-a-bed has arisen, it has done its day's work, for it rarely erects more than half an inch of its nest at a time; then leaves it all day, to harden and set, before commencing again on the following morning, for, if too much of the work was executed at once, the very weight of the material it uses would cause

it to fall. To prevent this, the swallow never builds up more than a layer or two at a time, and, when this is thoroughly hardened, works again upon it on the morrow. It is a pleasing sight to watch a swallow at work; to see it plastering away with its little chin, moving its head rapidly while it labours, and clinging firmly to the wall, as it works with its feet, and the pressure of its tail. Excepting when feeding its young, it labours but for three or four hours a day; the rest of its time is spent in playing with its companions, and seeking for food, which appears to form part of its amusement. These birds have often been observed in a dry season to wet their plumage, and shake themselves over the dust, which was not moist enough for the purposes of building, until they have got it into such a plastic state that it will readily adhere—such an action surely evinces a reasoning power. "One swallow does not make a Summer" is an old adage, and to see two or three skimming about, is no proof of the general arrival, and frequently a week or more will elapse, and it will be drawing towards the close of April before they are seen in large numbers. It is the opinion of most naturalists, that the old swallows pair before they arrive in this country, and that such are the earliest builders—the young and inexperienced, who commence housekeeping for the first time, are often the latest in rearing their broods. There are some people who do all they can to prevent swallows from building. I number none such amongst those whom I am proud to call my friends.

To one who, like myself, has for years found pleasure in studying the works of Nature, it affords great delight to witness the number of excellent works which are every year increasing on this inexhaustible subject, no department of which seems to arrest more attention than the habits of Birds. They are indeed the ancient builders, and in their plans may be traced the grand outline of many an art, which man has only improved and enlarged upon. They are the original masons and miners, who hew their way into rocks, and make their homes in caverns, burrow in embankments, and in every way seem equal to all we know of the habits of the early inhabitants of the earth. In them we find the early carpenters, who saw, and measure, and fit, make joints, rear up rafters and beams, and throw over all a vaulted roof. They are the primitive plasterers, who mix up cement, and spread it out smoothly over the rough work they have prepared to receive it, giving to the whole a level, hard, and even surface, which the builder of a palace can scarcely excel. The latter and the clothier but felts and weaves after their example. The basket-maker only twines into new forms the smoother and longer osiers which he avails himself of; for the brittle materials which they cross and intertwine together, would become a sightless and useless mass in his hands. Hurdie, a country parson, who lived at Bishopstone, in Sussex, about half a century ago, where he had his own press, and wrote and printed most of his truly beautiful poems, has, in his "Village Curate," left us the following exquisite passage on the building of birds:—

Mark it well, within, without;  
No tool had he that wrought; no knife to cut,  
No nail to fix, no hodkin to insert;  
No glue to join; his little beak was all,  
And yet how neatly finished! What nice hand,  
With every implement and means of art,  
And twenty years' apprenticeship to boot,  
Could make me such another?

To watch the habits of these "little nuns," that haunt our old cathedral-like-forests, is one among the many delights which come with the return of Spring—the season which of all others seems to bring with it the greatest pleasure. From the desolate and barren boundary-line of Winter, Spring advances, starting up from a bed of snow, and cold, and darkness. Summer has but to awaken, and she finds herself in a land already covered with flowers, and overhung with green leaves. Her coming startles us not; she seems to approach almost noiselessly. Nor is the rustling Autumn makes among the leaves more audible. It is Spring that, from the cold grey granite of a primeval looking world, starts up, and begins to clothe the naked waste with verdure; that arrests both eye and ear; and somehow we seem to love her better than any of the other Seasons, for we know through what a dreary and perilous waste she hath travelled; that night and day she was journeying on alone, when the snow was beating in her fair face, and the cold winds blowing upon the pale snowdrops which she held in her hand as she came along:

Before the red-cock crowed from the farm upon the hill,  
When we were warm asleep, and all the world was still.







M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.			HIGH WATER AT LONDON BRIDGE			EQUA- TION OF TIME	Day of the Year
			Rises.	Sets.	DECLINA- TION North.	Rises. Morning.	Sets. Morning.	Sets. Afternoon.	Before Sunrise. O'Clock. 1h. 2h. 3h.	Moon's Age.	After Sunset. O'Clock. 9h. 10h. 11h.	Morning.	Afternoon.	Subtract.		
1	M	<i>Philip. James</i>	4 33	7 22	15 12	3 49	10 18	5 1		23		No Tide.	0 25	3 5	122	
2	Tu	Castor souths 4h. 42m. P.M.	4 31	7 24	15 30	4 19	11 14	6 22		29		0 48	1 15	3 12	123	
3	W	Ox. Term begins.	4 29	7 25	15 48	4 56	Afternoon	7 41		0		1 35	2 00	3 19	124	
4	Th	[Camb. T. begins	4 28	7 26	16 5	5 37	1 13	8 57		1		2 25	2 45	3 25	125	
5	F	Pollux souths 4h. 37m. P.M.	4 26	7 27	16 22	6 21	2 13	10 5		2		3 10	3 35	3 30	126	
6	S	<i>St. John. Ant. P.L.</i>	4 25	7 29	16 39	7 19	3 12	11 4		3		3 55	4 20	3 35	127	
7	S	2ND S. AFT EASTER	4 23	7 30	16 56	8 19	4 9	11 53		4		4 40	5 5	3 39	128	
8	M	Half Quarter	4 21	7 32	17 12	9 23	5 3	Morning		5		5 30	5 50	3 43	129	
9	Tu	Procyon souths 4h. 26m. P.M.	4 20	7 33	17 28	10 25	5 54	0 33		6		6 20	6 45	3 46	130	
10	W	No real night in Scotland	4 18	7 35	17 41	11 36	6 41	1 7		7		7 15	7 45	3 49	131	
11	Th	α Hydra souths 6h. 1m. P.M.	4 16	7 37	17 59	Afternoon	7 27	1 35		8		8 20	9 0	3 51	132	
12	F	Easter Term ends	4 15	7 38	18 14	1 44	8 10	2 2		9		9 35	10 10	3 52	133	
13	S	Old May Day	4 13	7 40	18 29	2 48	8 53	2 26		10		10 45	11 15	3 53	134	
14	S	3RD S. AFT EASTER	4 12	7 42	18 44	3 50	9 35	2 48		11		11 50	No Tide.	3 54	135	
15	M	(The Illustrated London News was first published on May 14th 1842)	4 11	7 43	18 58	4 53	10 18	3 11		12		0 10	0 35	3 54	136	
16	Tu	Regulus souths 6h. 18m. P.M.	4 10	7 45	19 12	5 55	11 2	3 36		13		0 55	1 15	3 53	137	
17	W	β Leonis souths 7h. 55m. P.M.	4 8	7 46	19 25	6 56	11 47	4 2		14		1 35	1 55	3 52	138	
18	Th	<i>St. Dunstan</i>	4 7	7 47	19 38	7 58	Morning.	4 33		15		2 10	2 25	3 50	139	
19	F	Spica Virginis souths 9h. 22m. P.M.	4 5	7 49	19 51	8 51	0 34	5 10		16		2 45	3 0	3 47	140	
20	S	1st S. AFT EASTER	4 3	7 50	20 4	9 43	1 22	5 51		17		3 15	3 30	3 44	141	
21	S	Antares souths 10h. 5m. P.M.	4 2	7 52	20 16	10 31	2 11	6 39		18		3 50	4 5	3 41	142	
22	M	Corona Boealis souths 11h. 21m. P.M.	4 0	7 53	20 28	11 14	3 1	7 33		19		4 25	4 40	3 37	143	
23	Tu	Qu. Vic. born 1819	3 59	7 55	20 40	11 51	3 52	8 35		20		5 0	5 20	3 32	144	
24	W	Pr. Helena b. 1846	3 58	7 57	20 51	Morning.	4 42	9 40		21		5 40	6 5	3 27	145	
25	Th	Trinity Term begins	3 57	7 58	21 2	0 24	5 32	10 49		22		6 30	6 55	3 22	146	
26	F	<i>Ken. Bede</i>	3 56	7 59	21 12	0 52	6 22	Afternoon		23		7 20	7 55	3 15	147	
27	S	ROGATION SUN.	3 55	8 0	21 22	1 20	7 13	1 17		24		8 30	9 10	3 9	148	
28	S	K. Cha. II. restored	3 54	8 1	21 32	1 48	8 5	2 34		25		9 40	10 15	3 2	149	
29	M	in 1660. Called Royal Oak Day in remembrance of Charles II's concealment in the Boscopel oak 1651	3 53	8 2	21 41	2 17	8 59	3 54		26		10 50	11 20	2 54	150	
30	Tu		3 52	8 2	21 50	2 50	9 55	5 13		27		11 50	No Tide.	2 46	151	
31	W		3 52	8 3	21 59	3 28	10 54	6 31		28		0 20	0 45	2 3	152	



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## MAY.

**THE SUN** is in the sign Taurus till the 21st, on which day, at 0h. 12m. A.M., he enters Gemini (the Twins). On the 1st, he is 95,800,000 miles from the Earth. He rises on the 1st at E.N.E., and sets W.N.W.; on the 26th, he rises at N.E. by N., and sets at the N.W. by N. points of the horizon.

He souths on the 1st, at 3m. 5s. before noon; on the 15th, at 3m. 54s. before noon; and on the 31st, at 2m. 37s. before noon (common clock time); at an altitude of 53° on the 1st, of 57° on the 15th, and of 60° on the last day.

The Moon rises between 3h. A.M. and noon between the 1st and the 10th; between noon and midnight from the 12th to the 23rd; and after midnight from the 25th. She sets between 5h. P.M. and midnight from the 1st to the 7th; between midnight and noon from the 9th to the 25th; and after noon from the 27th. She is in Pisces on the 1st; near Aries and Cetus on the 2nd and 3rd; in Taurus on the 4th and 5th; passes from Taurus to Gemini on the 6th; in Gemini on the 7th; Cancer on the 8th and 9th; Leo on the 10th, 11th, and 12th; Virgo on the 13th, 14th, and 15th; Libra on the 16th and 17th; in Ophiuchus on the 18th, 19th, and 20th; near the boundaries of Sagittarius and Aquila on the 21st and 22nd; in Capricornus on the 23rd; in Aquarius on the 24th, 25th, and 26th; in Pisces on the 27th; Cetus on the 28th; Pisces on the 29th; Aries on the 30th; and Taurus on the 31st.

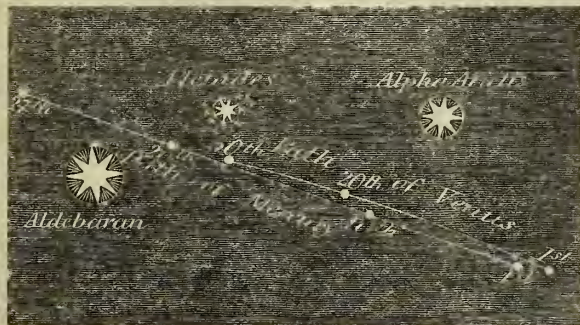
On the 1st, she is situated 4° N. of the Equator, and attains her greatest elevation on the 6th, being 56° above the horizon when she souths; she is on the Equator on the 13th, and on the 21st, is 19° above the horizon when she souths; is on the Equator on the 27th; and, on the last day, is situated 17° N. of the Equator, being 55° above the horizon, when she souths. She is new on the 3rd, and full on the 18th, but without an eclipse at both times.

She is near Mercury, Venus, and Uranus on the 1st; Mars and Jupiter on the 7th; Saturn on the 27th; and Venus on the 31st.

**MERCURY** is in the constellation of Pisces till the 3rd; in that of Cetus on the 4th and 5th; in that of Aries from the 6th to the 16th; and in Taurus from the 17th.

He rises near the E. by N. on the 1st, at 4h. 11m.; and on the 15th, at 4h. 1m.; and these times are 22m. and 10m. respectively before the Sun rises. He sets on the 21st, at 8h. 8m., being 16m. after the Sun has set; on the 24th at 8h. 34m.; on the 27th, at 8h. 58m.; and on the 31st, at 9h. 26m.: these last three times are 37m., 58m., and 1h. 23m. after sunset. Therefore, from the 27th, the Planet is favourably situated for observation after sunset. The Planet sets near the W.N.W. He is moving eastward among the stars, and he is in superior conjunction with the Sun on the 19th. He is near the Moon on the 1st. He is near Venus at the beginning of the month, as is shown in the annexed diagram.

PATHS OF MERCURY AND VENUS IN MAY, 1848.



Scale, 20 degrees to one inch.

**VENUS** will be in the constellation of Pisces till the 7th; in that of Aries from the 7th to the 27th, on which day she will pass into Taurus.

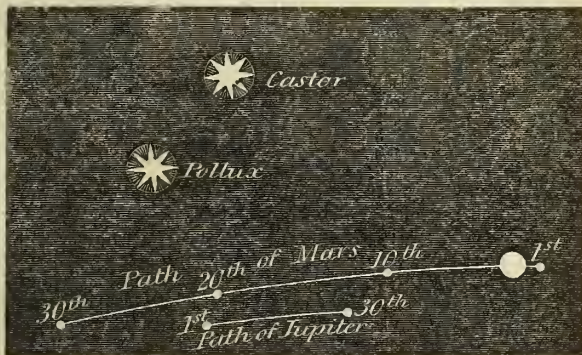
She is a morning star all the month, and rises near the E. by N. at the beginning, and near E.N.E. at the end; on the 1st, at 4h. 1m.; on the 15th, at 3h. 36m.; and on the last day, at 3h. 16m. A.M. She souths at 10h. 35m. on the 1st; at 10h. 44m. on the 15th; and at 10h. 59m. A.M. on the 31st; at the altitude of 44° on the 1st; of 51° on the 15th; and of 57° on the last day. She is near the Moon on the 1st; and also on this day she is near Mercury and Uranus, and the Moon passes her again on the 31st.

**MARS** will be in the constellation of Gemini till the 29th, and in that of Cancer on the 30th and 31st.

He is an evening star and sets near the N.W. by N. on the 1st, at 0h. 25m.

A.M.; on the 15th 11h. 58m. P.M.; and on the 31st at 11h. 24m. P.M. He souths at an altitude 63° on the 1st, and 61° on the last day; at 3h. 57m. P.M. on the 1st; at 3h. 38m. on the 15th; and at 3h. 16m. on the 31st. He is near the Moon on the 7th, and he is near Jupiter all the month, being W. of him till the 16th, near him on the 17th, and moving eastward from him from the 18th to the end of the month. Mars being the higher of the two Planets all the month. These Planets are both situated near to Castor and Pollux, during this month; and their relative positions and motions are represented in the annexed cut.

PATHS OF MARS AND JUPITER IN MAY, 1848.



Scale, seven-and-a-half degrees to one inch; the planet Mars is drawn on a scale of 40 seconds of arc to an inch.

**JUPITER** will be in the constellation Gemini throughout the month.

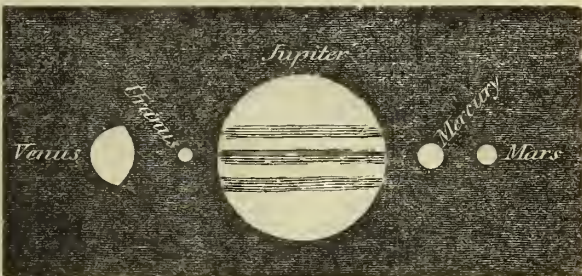
He is an evening star, and sets near the N.W. by W. on the 1st at 0h. 43m. A.M.; on the 15th, at 11h. 52m. P.M.; and on the 31st, at 10h. 59m. P.M. About the middle of the month he rises at 8h. A.M., and passes the meridian at 3h. 40m. P.M., at an altitude of 61°.

His motion among the stars is slowly eastward.

He is near the Moon on the 7th. At the beginning of the month he is some distance to the left of Mars; on the 18th, the two Planets are near together; the Planet Mars being higher than Jupiter; and after this time Jupiter will be to the right of Mars, by intervals, becoming greater and greater day by day. (See the preceding diagram.)

The telescopic appearances of the Planets, whose paths are exhibited in the preceding engravings in this month, are as follows:—

RELATIVE APPEARANCE OF THE PLANETS IN THE MONTH OF MAY, 1848.



Scale, 40 seconds of arc to one inch.

By comparison of these appearances with those shown in January, their change of appearance will be immediately seen; and they are such that they all appear to be much smaller than in January.

**SATURN** will be in the constellation Pisces. He is a morning star, and rises midway between the E. and the E. by S. on the 1st day, at 3h. 18m. A.M.; on the 15th day, at 2h. 25m. A.M.; and on the last day, at 1h. 24m. A.M. He souths at 8h. 5m. A.M., on the 15th day. He is near the Moon on the 27th.

Days of the Month.	Length of Day, or number of hours between Sun-rise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Day-break, or beginning of Twilight		Time of Twilight ending.	JUPITER'S SATELLITES.				OCCULTATIONS OF STARS BY THE MOON.				
			H.	M.		Eclipses of				Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Stars.	At the dark or bright limb of the Moon.	
						1st. Sat.		3rd Sat.						
						Emerision.		Immersion.						
	H. M.	H. M.	H.	M.	H. M.	n. h. m.	n. h. m.			n. h. m.				
1	14 49	7 4	2 4	9 53		9 9 41 P. M.	4 9 1 P. M.	k Geminorum	5	7 10 31 P. M.	Dark			
6	15 4	7 19	1 45	10 9						7 11 5 P. M.	Bright			
11	15 21	7 36	1 25	10 29				d Leonis	5	12 0 12 A. M.	Dark			
16	15 35	7 50	1 1	10 53						12 0 44 A. M.	Bright			
21	15 50	8 5	0 29	11 34						25 1 38 A. M.	Bright			
26	16 3	8 18	No real Night, but constant Twilight.			8 9 22 P. M.		Lambda Capricorni	5½	25 2 45 A. M.	Dark			
31	16 11	8 26												

**TIMES OF CHANGES OF THE MOON,**  
And when she is at her greatest distance (Apogee), or her least distance (Perigee), from the Earth in each Lunation.

	3d.	7h.	15m.	A.M.
NEW MOON	10	2	57	A.M.
FIRST QUARTER	18	6	42	A.M.
FULL MOON	25	11	47	P.M.
LAST QUARTER	2	9		P.M.
PERIGEE	15	Midnight		
APOGEE	31	6		A.M.

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Declination North.		Declination North.		Declination North.		Declination North.		Declination South.		Declination North.	
	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	1h. 27m	6° 40'	1h. 13m	6° 2'	6h. 35m	24° 45'	7h. 6m	22° 56'	23h. 33m	4° 58'	1h. 13m	7° 6'
6	2 1	10 26	1 36	8 21	6 48	24 31	7 9	22 51	23 35	4 48	1 14	7 12
11	2 38	14 20	1 59	10 35	7 1	24 12	7 13	22 46	23 37	4 38	1 15	7 18
16	3 19	18 8	2 22	12 43	7 14	23 50	7 16	22 39	23 38	4 30	1 16	7 23
21	4 3	21 27	2 46	12 44	7 27	23 24	7 20	22 32	23 40	4 22	1 17	7 29
26	4 49	23 54	3 10	16 36	7 40	22 54	7 24	22 25	23 41	4 15	1 18	7 34



# COUNTRY SCENES.-MAY.



There's not a budding boy or girl this day,  
But is got up and gone to bring in May.  
A deal of youth ere this has come  
Back, and with whiethorn's laden home.

HERRICK.

BEAUTIFUL as May will ever be, it was a much merrier month in the olden time than it is now. Our forefathers, though brave as lions, were still children at heart: they loved all ancient customs that contributed to happiness, and considered that time well spent, which drew them closer and endeared them more to each other: they had their mustering grounds, where Wealth and Poverty often congregated on the same equal footing. May was one of the chief months in which this happy assemblage took place. The Lord of the Soil gave the tallest tree upon his estate for the May-pole; and the lowliest labourer that lived under him was for one day in the year happy, and danced around it, and loved all the more the kind master, who had gladly granted him his May-day holiday, and who, with his fair wife and lovely daughter, came down from the old ivy-covered hall to look at the rustic sport. It was a holy and kindly feeling that first established this reverence to Nature, this worship to the sovereign Month of Flowers. If, as is said, it first originated amongst the Pagans, it, nevertheless, revealed glimpses of the Great Divinity, then but dimly seen; for, distant as the approach may be, those who feel a love for the things created, will at last carry their adoration to the Creator.

Our ancestors rose with the first dawning of day, to fetch home boughs from the woods, with which they decorated the fronts of their houses, formed into green arbours, and twined into their May-day garlands. Both Spenser and

Herrick, two of our old poets, have left us descriptions of this ancient custom, which is mentioned by older writers who lived long before their names were known; and we could quote pages of beautiful passages from many ancient works, illustrative of old May-day customs—

But they are dead and gone, lady,  
They are dead and gone;  
And at their head a grass-green turf  
And at their feet a stone.—

we have but glanced at them as belonging to the things that have passed away.

If May brought not another blossom excepting those which she hangs out upon our thousands of miles of hawthorn hedges, we should still hail her as Queen of the Year. Oh! is it not a pleasant thought to know that even "looped and windowed raggedness," the poorest beggar that ever wandered in want by the wayside, now inhales a fragrance worthy of the gardens of Heaven—that around the homeliest cottage, whose thatched roof covers contented Poverty, there now spreads an aroma such as never floated into the marble halls of city palaces, such as the roses of Summer never shed. I have before, while given the rein to my fancy, described how these beautiful blossoms were first formed, in my "Poetical Lan-



gnage of Flowers," from which I again copy the following lines, showing—

## HOW MAY WAS FIRST MADE.

As Spring upon a silver cloud,  
Lay looking on the world below,  
Watching the breezes as they bowed  
The buds and blossoms to and fro,  
She saw the fields with hawthorns walled;  
Said Spring, "New buds I will create;  
She to a Flower-spirit called,  
Who on the month of May did wait,  
And bade her fetch a hawthorn spray,  
That she might make the buds of May.

Said Spring, "The grass looks green and bright;  
The hawthorn hedges, too, are green;  
I'll sprinkle them with flowers of light,  
Such stars as Earth hath never seen;  
And all through England's girded vales,  
Her steep hill-sides, and haunted streams,  
Where woodlands dip into the dale,  
Where'er the hawthorn stands and dreams;  
Where thick-leaved trees make dark the day;  
I'll light each nook with flowers of May.

Like pearly dew-drops, white and round,  
The shut-up buds shall first appear,  
And in them be such fragrance found  
As breeze before did never bear;  
Such as in Eden only dwelt,  
When angels hovered round its bowers,  
And long-haired Eve at morning kneel  
In innocence, amid the flowers;  
While the whole air was every way  
Filled with a perfume sweet as May.

And oft shall groups of children come,  
Threading their way through shady places,  
From many a peaceful English home,  
The sunshine falling on their faces;  
Starting with merry voice the thrush.  
As through green lanes they wander sing-  
ing.

To gather the sweet hawthorn hush,  
Which homeward in the evening brings;  
With smiling faces, they shall say,  
"There's nothing half so sweet as May."

Spring shook the cloud on which she lay  
And silvered o'er the hawthorn-spray,  
Then showered down the buds of May.

Now the woods ring again with the loud chattering of the jay, and the merry shout of the woodpecker; and the golden furze-bushes are all alive with flocks of busy linnet. The golden-banded bees are out upon the broom-covered heath, and where the clover-fields are in flower, they keep up a continuous murmuring, like a rattle that ever rolls singing to itself beneath its flowery banks.

"Tirra-lirra, tirra-lirra, jug, jug, jug!" List! that is the song of the nightingale. How delightful to wander forth on a sweet May evening, and listen to that enchanting lay, while the star of eve is planted like a gem upon the forehead of the sky. Although we can scarcely see what flowers are at our feet, or distinguish the May-buds, from which such a rich aroma arises, from the leaves, we know that the tawny-brown bead of the little chloris is somewhere at hand, "in shadiest covert hid," and will never wander far from the spot, unless captured, until the Summer flowers begin to fade. It is believed that the nightingale sings sweetest in the neighbourhood where the spotted cowslips grow; and that never, until the time of his departure arrives, can he be allured from so sweet a spot. What rapid notes; how his music gushes forth, like a stream that is eager to empty itself; he sings as if Summer were far too short for him to reach the end of his song; as if, even with all his hurry, he should not have half time enough to say all that he intended, although he came before the pearl-flushed blossoms of the hawthorn had opened. See where the bright round moon heaves up above the distant hill! Oh, who would not leave the glitter and glare of the crowded city for such a scene as this? Saving for the song of the nightingale, how still the whole landscape seems; between the pauses that he makes to regalia his breath, we can hear the lapping and rippling of the river; not a branch wavers without the rustling sound becoming audible; and far off we catch the melancholy booming of the bittern—that strange, sad, and solitary sound, which, when heard at midnight, in the midst of lonely and desolate marshes, causes the stoutest heart for a moment to quail.

"Too-who, too-who!" Ancient haunter of ruins, lover of darkness, I know thy voice. Fitting abode for the owl is yonder "ivy-mantled tower," on which the moon-light is now falling; for the bower which beauty once adorned is now desolate; the floor of the banqueting-hall is now haunted by the toad, and among the rank weeds which overgrow the court-yard the red fox oftentimes shelters. From those crumbling battlements the call of the warden will never more sound.

Next to the study of birds, the habits of bees ought to rank chief amongst that of insects; those "singing masons" that build "roofs of gold," who go out with "merry March," to rob the velvet buds. How naturally comes to the mind that beautiful description of Shakspeare's, which everybody must be familiar with who reads his works. With what state the queen bee sets out, when she quits her hive; what pursuivants, heralds, outriders, attendants, who wear belts of gold, swell her train, and "go sounding" through the "flowery towns" she passes. What order rules her household, filled as it is with nurses who feed the young, and waiters who bring provisions to the builders, and busy scouts who are ever running to and fro, and carrying in food; kneaders of wax, and skilful architects, who work with mathematical accuracy, and display the greatest knowledge both in the saving of material and labour, though their work is completed in the most perfect manner. Thanks to the naturalists who have made the habits of these English "humming birds" their study, we are daily becoming more familiar with the "government" of bees.

Flowers are now abundant, the trees become more beautiful every day, and all the singing birds that visit us are now assembled in the fields and woods, and, as the old women in the country say, "it is almost a sin to stay in-doors, if we can get out;" for this is the month which our Saxon ancestors called "Milk Month;" and, from the very name, we know that beautiful English maidens rose early in the mornings of May, and went out into the very fields in which our country maids still sing, to milk their cows, just as the village girls do in our own day. An old grey-headed man once told me that he had heard his grandfather say, the hills which rise above Gainsborough, in Lincolnshire, were in ancient times called the Milk Hills; but they never retained that name after they were enclosed; and I have often thought that they bore the same name when my native country formed a part of the Saxon kingdom of Mercia; for I deeply love these old associations; for I knew that Alfred, when young, had marched over those very hills, when he joined his brother and the King of Mercia and they crossed the Trent to attack the Danes, who occupied Nottingham. May, and milk-month, and the old green milk-hills, were always in my mind associated with Alfred, and the Danes, and the destruction of Croyland Abbey, and no end of "old world histories." Nor can England furnish many prettier little pastoral pictures than a comely village girl milking a beautiful red-and-white cow under a shady tree, with a reedy pond at hand, half darkened by shadowy foliage, and, in the background,

A green English home—a land of ancient Peace."

It is not all poetry that such a scene conjures up. No; there is mingled with it visions of sweet butter and new cheese; yellow cream, in which a spoon will almost stand upright; cheesecakes, curds-and-whey, syllabubs, and endless good things, which convince a sensible man that Taste is not confined alone to the fine arts. Fain would I present my readers with Sir Thomas Overbury's description of a "Fair and Happy Milkmaid," if want of space did not prevent me. As it is, I hope they will bear it in mind, and if they have never read it, remember that it is one of the most beautiful poetical-prose paintings in the English language. Those who have seen my "Beauties of the Country" are already acquainted with the extract. The following is all I have room for:—"She knows a fair look is

but a dumb orator to commend virtue, therefore minds it not; though she is not arrayed in the spoils of the silk-worm, she is decked in innocence—a far better wearing; she rises with the cock, and at night makes the bell her curfew. Her breath is her own, which scents all the year long of June, like a new-made hay-cock. She makes her hand hard with labour, and her heart soft with pity." So he runs on, piling one beautiful conceit upon another unto the end of the sketch.

The young corn has now risen high above the furrows, and looks like slips of green silk waving in the wind. Wild roses droop their pearl-flushed cups beneath the weight of morning dew. Along the wayside hedges, the chestnut begins to show its cones of flowers; while the laburnums stand like foresters, in their rich liveries of "green and gold." The oaks put on their new attire, but slowly, as if to show that their hardy limbs have less need to don their new clothing than their more effeminate brothers of the wood, but condescending at last to act like the rest, if it only be to shelter the birds, and keep the woodbine and wild flowers that grow around their knotted knees from withering.

What pictures now float before us—what glimpses of rural objects has that old knotted oak called up! The hawk which we once saw poised almost motionless above it—the hare we startled from the fern that grew at its feet—the gipsy camp, a few yards distant, which we first discovered by the smoke curling above its foliage—the ringdove we heard cooing, while lying idly in its cool shade—the brook that seemed to sing for a moment, and then to become silent again, just as the wind went and came among the green oak-leaves—surely, man was never intended to spend his days in walled cities, without beholding the beauty with which the hand of God has clothed the earth, to instruct and delight him.

Even a life of toil and suffering is sweetened by the remembrance of scenes like these, for they are pleasures that pass not away, but are ever stepping un- aware upon us, throwing sudden bursts of "sunshine upon the shady place," and cheering sorrow in its solitude. By my own hearth I can traverse hundreds of miles of pleasant scenery, can call up an hundred landscapes of forest, hill, river, valley, and pastoral plain; of village, and tree, and stile; of winding high- ways and pleasant field-paths, even to the very figures that dot the scenery, and the parting boughs above my head, that let in little patches of clear blue sky; and during such rambles as these, England has seemed to be my own great freehold. If the selfish lord of the soil refused me admittance through his gate, I sought the nearest eminence that overlooked it, peeped at his deer, and his avenues, his sheets of water, where the white swans floated, and carried off in my heart images of pleasure that delighted me for days after, while he moved only before my "mind's eye," like the ill-formed scare-crow, that gave "disgust, but hurt not;" nor did I love Nature less, because he was placed there for a time, though I sometimes sat down beside his wall, and "taxed Heaven with unkindness;" but this feeling soon passed away, my wrath reached not through fourteen lines of a sonnet.

Are our rulers aware that the miscalled tea-gardens around this huge Metropolis, which contains two millions of human souls, are but little better than out- of-door gin-shops?—that every vendor of spirits, who can command an acre or two of land, a tree or two, a few benches, a licence, and a little "harsh-music," can, by law, half-poison, or make drunk, all who choose to call "Waiver," and have the wherewith to make themselves comfortably drunk? I believe not! Yet, what scenes I have witnessed in my rambles around these suburbs! as I have wandered an unknown wayfarer, with my stick in my hand, and sat down on the nearest bench, to my glass of ale and crust of bread and cheese; and I have sighed to think that, ere long, when the infamous Enclosure Act is in full force, these will be the only places where the future men and women of England can resort to. But then—happy thought!—our city-streets will be well-drained, and our close courts well ventilated; we shall be able to ruralize in cellars without fearing the fever; our garrets will be sweeter than gardens; we shall be delight- fully situated in the neighbourhood of Wash-houses and Model Lodging-houses; and see May with all its flowers—in the flower-pots—exchanging vegetation for ventilation, the latter an improvement truly. Would it not be wiser to divide it —to let us have a little less of the "villanous compound," and a little more of May in the country? A knowledge of the beautiful can only be obtained by an ac- quaintance with nature. We may throw open the doors of our exhibitions, and hang the walls with pictures, but if we enclose the green, rural, and out-of-door world, we shut up the reality, and all the glimpses that can be got of those cool verdurous old English nooks will be limited to such as can be seen on the canvass. To alter the language of Cowper, we may then exclaim, "Man made the town, and the artist the country," at least so much of it, as, excepting the dusty high- ways, we shall be allowed to see. Such is the wisdom of our modern Legislators.







M D	W D	ANNIVERSARIES, OCCU- RENCES, FESTIVALS, &c	SUN.			MOON.			DURATION OF MOONLIGHT.			HIGH WATER		EQUA- TION OF TIME Subtract.	Day of the Year.
			Rises.	Sets.	Declina- tion North.	Rises.	Souths.	Sets.	Before Sunrise.	O'Clock.	After Sunset.	At London Bridge.			
			H. M.	H. M.	Deg. Min.	H. M.	H. M.	H. M.	1h. 2h. 3h.	Moons Age.	O'Clock. 9h. 10h. 11h.	Morning.	Afternoon.	M. S.	
1	Th	<i>Ascen. Holy Thurs-</i>	3 52	8 5	22 7	4 11	11 54	7 44		0		1 15	1 35	2 28	153
2	F	[day. Nicomede	3 51	8 5	22 15	5 1	Afternoon	8 48		1		2 5	2 30	2 19	154
3	S	No real night	3 50	8 6	22 22	6 1	1 54	9 44		2		2 55	3 20	2 9	155
4	S	SUN. AFT. ASC. D.	3 49	8 7	22 29	7 4	2 51	10 30		3		3 40	4 5	1 59	156
5	M	<i>St. Boniface. King</i>	3 49	8 8	22 36	8 12	3 45	11 7		4		4 30	4 50	1 49	157
6	Th	of Hanover born. <i>St. Boni-</i>	3 48	8 8	22 42	9 19	4 35	11 40		5		5 15	5 35	1 38	158
7	F	face was an Englishman, and after being sent to preach the Gospel in Fries-	3 47	8 9	22 48	10 27	5 22	Morning.		6		6 0	6 25	1 27	159
8	M	land, was made primate of Germany. He is the Apostle of the Germans. He suffer-	3 47	8 10	22 53	11 34	6 7	0 5		7		6 50	7 15	1 16	160
9	F	ed Martyrdom in 755	3 46	8 11	22 59	Afternoon	6 51	0 30		8		7 45	8 10	1 4	161
10	S	Oxford Term ends	3 46	8 12	23 3	1 40	7 33	0 54		9		8 45	9 20	0 53	162
11	S	PENTECOST. W. S.	3 46	8 13	23 7	2 42	8 16	1 17		10		9 50	10 20	0 41	163
12	M	Whit Monday	3 46	8 13	23 11	3 44	8 59	1 40		11		10 55	11 20	0 29	164
13	Th	Whit Tuesday	3 45	8 14	23 15	4 46	9 44	2 6		12		11 55	No Tide.	0 16	165
14	W	Ember Week	3 45	8 14	23 18	5 47	10 30	2 35		13		0 20	0 40	Add.	166
15	Th	Regulus sets at 11h. 33m.	3 45	8 15	23 20	6 45	11 18	3 8		14		1 0	1 20	0 9	167
16	F	Trinity Term ends	3 45	8 15	23 23	7 39	Morning.	3 49		15		1 45	2 0	0 21	168
17	S	<i>St. Alban</i>	3 45	8 16	23 24	8 30	0 7	4 34		16		2 20	2 40	0 34	169
18	S	TRINITY SUNDAY	3 45	8 17	23 26	9 15	0 58	5 28		17		2 55	3 15	0 47	170
19	M	Arcturus souths 5h. 16m. P.M.	3 45	8 17	23 27	9 53	1 49	6 27		18		3 35	3 50	1 0	171
20	Th	Queen Vic. acces.	3 45	8 17	23 27	10 29	2 39	7 31		19		4 10	4 25	1 13	172
21	W	Queen Vic. proc. Longest day	3 45	8 17	23 27	10 59	3 30	8 40		20		4 45	5 5	1 26	173
22	Th	<i>Corpus Christi</i>	3 46	8 18	23 27	11 28	4 20	9 51		21		5 30	5 50	1 39	174
23	F	α Corvus Borealis souths 9h. 20m P.M.	3 46	8 18	23 26	11 53	5 10	11 4		22		6 15	6 40	1 51	175
24	S	Nat. <i>St. John</i>	3 46	8 18	23 25	Morning.	6 0	Afternoon		23		7 5	7 35	2 4	176
25	S	1ST S. AFT. TRINITY	3 47	8 18	23 24	0 22	6 52	1 35		24		8 5	8 35	2 17	177
26	M	α S. reptis souths 9h. 16m P.M.	3 47	8 18	23 22	0 51	7 45	2 53		25		9 15	9 45	2 30	178
27	Th	Antar. s souths 9h. 55m. P.M.	3 47	8 18	23 20	1 24	8 40	4 8		26		10 20	10 55	2 42	179
28	W	Qu. Vic. cro. 1838	3 48	8 18	23 17	2 3	9 38	5 23		27		11 25	11 55	2 55	180
29	Th	<i>St. Peter's day. St.</i>	3 49	8 17	23 14	2 48	10 37	6 31		28		No Tide.	0 30	3 7	181
30	F	Peter was the oldest of the Apos.; he was cruc. A.D. 65	3 49	8 17	23 10	3 41	11 37	7 31		29		0 57	1 25	3 19	182



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## JUNE.

THE SUN is in the sign Gemini till the 21st, on which day, at 8h. 13m. A.M., he enters the sign Cancer (the Crab), and Summer commences.

On the 1st day, he is 96,400,000 miles from the Earth. He rises on the 1st, near 2° N. of the N.E. by N., and sets 2° N. of the N.W. by N.; on the 21st, he is at his greatest North declination, and rises and sets 4° N. of the above points of the horizon. He souths on the 1st, at 2m. 28s. before noon; on the 14th, at 4 seconds before noon; and, on the last day, at 3m. 18s. after noon (common clock time); at an altitude of 60½°, on the 1st; of 62° nearly, on the 22nd; and of 61½° on the last day.

The MOON rises between 4h. A.M. and noon, from the 1st to the 8th; between noon and midnight, from the 10th to the 23rd; and after noon from the 25th. She sets between 7h. P.M. and midnight from the 1st to the 6th; between midnight and noon, from the 8th to the 23rd; and after noon from the 25th.

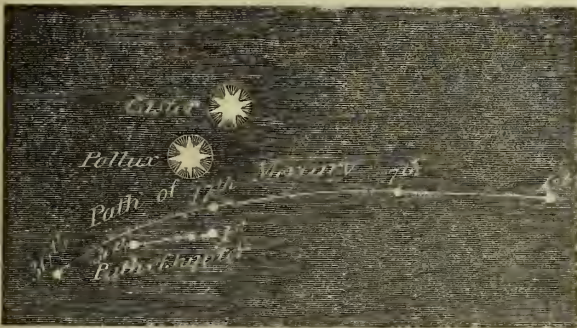
She is in the constellation Taurus on the 1st and 2nd; Gemini on the 3rd and 4th; Cancer on the 5th; Leo on the 6th, 7th, and 8th; Virgo from the 9th to the 12th; Libra on the 13th and 14th; Ophiuchus on the 15th and 16th; she is moving on the boundaries of Sagittarius and Aquila during the 17th and 18th; in Capricornus on the 19th; in Aquarius on the 20th, 21st, and 22nd; in Pisces on the 23rd; in Cetus on the 24th; in Pisces on the 25th; skirting Aries and Cetus on the 26th and 27th; in Taurus on the 28th and 29th; and in Gemini on the 30th.

On the 2nd, attains her greatest altitude, being 56° high when she souths; is on the Equator on the 9th; at her lowest point on the 17th, being 20° above the horizon when she souths; is on the Equator again on the 24th; and, on the last day, is situated 18° N. of the Equator.

She is new on the 1st; full on the 16th; and new again on the 30th; but without an eclipse at such times.

She is near Mercury on the 2nd; Jupiter and Mars on the 4th; Saturn on the 23rd; Uranus on the 25th; and Venus on the 30th.

### PATHS OF MERCURY AND JUPITER, JUNE, 1848.



Scale, 15 degrees to one inch.

MERCURY is in the constellation of Taurus on the 1st and 2nd; in that of Gemini, from the 3rd to the 21st; and on the latter day passes into Cancer.

He sets near the W.N.W. throughout the month: on the 1st, at 9h. 31m.; on the 5th, at 9h. 49m.; on the 8th, at 9h. 58m.; on the 11th, at 10h. 3m.; on the 14th, at 10h. 5m.; on the 17th, at 10h. 2m.; on the 20th, at 9h. 57m.; on the 23rd, at 9h. 50m.; on the 26th, at 9h. 30m.; on the 29th, at 9h. 28m.; and on the 30th, at 9h. 23m. These times are, 1h. 26m., on the 1st; 1h. 41m., on the 5th; 1h. 48m., on the 8th; 1h. 50m., on the 11th; 1h. 51m., on the 14th; 1h. 46m., on the 17th; 1h. 40m., on the 20th; 1h. 32m., on the 23rd; 1h. 12m., on the 26th; 1h. 11m., on the 29th; and 1h. 6m., on the 30th. Throughout the whole of this month, the Planet is most favourably situated for observing him. He is moving Eastward among the

stars, quickly at the beginning and slowly at the end of the month. From the middle of the month to the end, he is very near Jupiter, particularly during the evening of the 20th. The relative positions of these Planets throughout the month, with respect to themselves and to the fixed stars, are shown in the following engraving. He is at his greatest East elongation on the 22nd.

VENUS will be in the constellation of Taurus till the 27th; and in that of Gemini after that time.

She is a morning star during this month, and rises near the E.N.E., on the 1st, at 3h. 15m.; on the 15th, at 3h. 9m.; and on the 30th, at 3h. 18m. She souths on the 1st, at 1h. 0m.; on the 15th, at 1h. 16m.; and on the 30th, at 1h. 36m. A.M., at the altitude of 57° on the 1st; of 61° on the 15th; and of 62° at the end of the month. During this month, this planet attains her greatest North declination (See below); and, consequently, she attains her greatest meridian altitude during the year. She is near the Moon on the 30th.

MARS will be in the constellation of Cancer throughout the month.

He is an evening star, and sets near N.W. by N. at the beginning, and midway between N.W. by N. and W.N.W. at the end of the month; on the 1st day, at 1h. 22m. P.M.; on the 15th, at 10h. 50m. P.M.; and on the 30th, at 10h. 13m. P.M. He souths on the 1st, at 3h. 15m. P.M.; and on the last day at 2h. 34m. P.M. He is near the Moon on the 4th, and he is moving eastward from Jupiter during the month, through a barren region in the heavens.

JUPITER will be in the constellation Gemini till the 26th, and in that of Cancer from the 27th.

He is an evening star, and sets near the N.W. by W. on the 1st, at 10h. 56m. P.M.; on the 18th, at 10h. 16m. P.M.; and on the 30th, at 9h. 20m. P.M.

About the middle of the month he rises at 6h. A.M., and souths at 2h. P.M., at an altitude of 60°. His motion among the stars is eastward; he is near the Moon on the 4th; he is still near Castor and Pollux; and from the middle of the month he is also near Mercury; these four objects being near together, particularly on the 20th day.

SATURN will be in the constellation Pisces. He is a morning star, and rises midway between the E. and E. by S. on the 1st day, at 1h. 21m. A.M.; on the 15th, at 0h. 27m. A.M.; and on the 30th, at 1h. 25m. P.M. He souths on the 15th, at 6h. 10m. A.M., and sets at about noon. He is near the Moon on the 23d. The ring is invisible during this month.

URANUS rises near the E. by N. on the 1st, at 1h. 56m. A.M., and on the last day, at 0h. 4m. A.M. He souths on the 15th, at 7h. 45m., at an altitude of 45°.

The various phenomena connected with the appearance of Saturn's ring will be better understood by referring to the following Engraving, where the circle *a, b, c, d*, represents the orbit of the Earth round the Sun, in the centre, and *A, B, C, D, E, F*, and *G*, that of the orbit of Saturn, the latter being at a distance from the Sun nine and a-half times greater than that of the former.

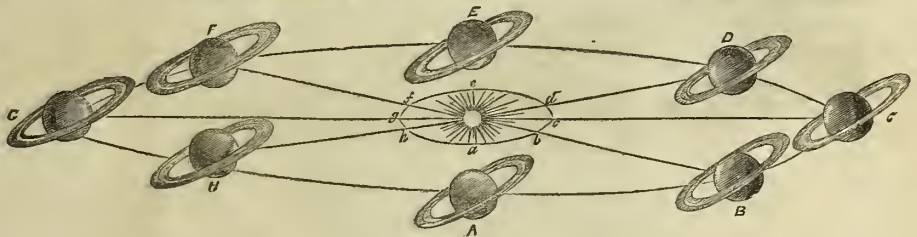
When Saturn is in the position at *A*, the Earth and the Sun are both in the plane of the ring, or, in other words, its edge is turned towards us, and it will be invisible. It was in this situation in the year 1833.

As the Planet moves in his orbit from the position *A* to that of *B*, the ring gradually opens, and we see its northern side; and at the position *C*, the ring is the most open, its face being turned more directly towards us. It was in this position in the year 1838.

As the Planet advances towards the position at *D*, the ring gradually closes, and it contracts more and more till it again disappears at *E*, in which position the Sun shines on one side of it, and we are looking at the other. It is in this position at present (1848).

As the Planet still farther advances in his orbit from the position *E* to that of *F*, it continues invisible till the Sun and the Earth are again on the same side of

### DIAGRAM ILLUSTRATIVE OF THE DIFFERENT APPEARANCES OF SATURN'S RING.



(Continued in July.)

Days of the Month.	Length of Day, or number of hours between Sunrise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Daybreak, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.		OCCULTATIONS OF STARS BY THE MOON.			
							Names of the Stars.	Magnitude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
1	H. M. 16 13	H. M. 8 28	No real night, but constant twilight.		Are not visible, Jupiter being too near to the Sun.		10 Sextantis	6	D. H. M. 6 11 13 P.M.	Dark
6	16 21	8 35					Omicron 2 Libræ	6	At re-appearance, the Moon will have set. 13 9 57 P.M.	Bright
11	16 27	8 42					s Ophiuchi	6	13 11 9 P.M.	Dark
16	16 30	8 45							15 9 20 P.M.	Bright
21	16 32	8 47								
26	16 31	0 1								
30	16 28	0 4								

### TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

NEW MOON .. ..	1d. 2h. 40m. P.M.
FIRST QUARTER .. ..	8 5 16 P.M.
FULL MOON .. ..	16 8 58 P.M.
LAST QUARTER .. ..	24 6 27 A.M.
NEW MOON .. ..	30 10 19 P.M.
APOGEE .. ..	12 11 A.M.
PERIGEE .. ..	28 7 A.M.

Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
	MERCURY		VENUS		MARS		JUPITER		SATURN		URANUS	
	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	5h 42m	25° 23'	3h. 40m	18° 37'	7h. 56m	22° 13'	7h 29m	22° 45'	23h. 42m	4° 8'	1h. 19 n	7° 39'
6	6 22	25 28	4 5	20 5	8 8	21 35	7 33	22 6	23 43	4 3	1 20	7 44
11	6 57	24 43	4 31	21 19	8 21	20 53	7 38	21 57	23 44	3 58	1 20	7 43
16	7 27	23 24	4 57	22 18	8 34	20 8	7 42	21 47	23 45	3 55	1 21	7 52
21	7 50	21 43	5 23	23 2	8 45	19 20	7 46	21 36	23 45	3 53	1 21	7 55
26	8 7	19 54	5 50	23 29	8 59	18 28	7 51	21 25	23 46	3 52	1 22	7 58





A hidden brook in the leafy month of June,  
That to the sleeping woods all night singeth a quiet tune.

COLERIDGE.

JUNE is the month of roses, the season when England's own national flower blows broad and beautiful along her brown old winding highways, and in her thousands of beautiful gardens, outrivaling the dye that stains the lovely cheeks of her own island maidens. The rose has ever been held as the queen of flowers; it has been called the ornament of the earth—the blush of beauty, and the breath of love. In ancient days the bride was crowned with it, and it was twined around the brows of the honoured guests who sat at the banquets, and was made the emblem of friendship and love. Poets have drawn from it their most beautiful imagery, and Shakspeare has compared a beautiful woman that is cut off in the bloom of life, to a rose that dies as soon as it has grown to perfection. Now the honeysuckle, streaked with white and red, flaunts its sweet flowers in the hedgerows, and the golden marsh-flag throws its sunny shadow upon the streams and pools which it ornaments, overtopping its chaste companion the blue forget-me-not—that little flower

Whose very name is Love's own poetry  
Born of the heart, and of the eye begot,  
Nursed amid smiles and sighs by Constancy,  
And ever saying, "Love, Forget-me-not."

The red poppy also begins to bloom, and the large white and yellow lilies to display their flowers, and the Canterbury-bell is hung with its beautifully urn-shaped azure cups. The white water-lily, the fairest lady of the lake, now rears

her head above the piled velvet of her leaves, and looks down into the clear water, in which is mirrored the image of her beauty. In the forest the fern already throws out the dark green shadow of its overhanging leaves, and Summer is everywhere festooning her lofty halls with leaves and flowers.

Towards the end of this month that pleasant rural occupation, hay-making, commences. The eye is first drawn towards the scene by the sharp rasping sound the mower makes as he whets his scythe, and while we pause and look on, we see at every sweep of his sinewy arms the field-flowers, the pride of Spring, laid prostrate; swathe upon swathe is turned over, and through the fallen and bladed grass peep the golden buttercup, and the spotted cowslip, the rounded crimson of the clover, and the snow-white rim of the daisy, and long before the evening Sun has sunk down into the west, their beauty has perished for ever. Onward goes the destroyer like death, with his scythe in his hand, hewing down all he approaches without distinction, and leaving them ridge upon ridge to be piled into windrows until the field is at last filled with rounded hillocks, graves under which the flowers of Spring lie dead and buried; but still throwing a rich perfume upon the air, which tells how fair and sweet were those pretty daughters of the earth and sky that sleep beneath. Pleasant is the creaking sound of the hay-waggons, as the wheels roll smoothly along the new-mown fields, down grassy lanes which are seldom traversed excepting in harvest time, across the river-ford, in which both wain and horses are mirrored, and where the driver and the steeds keep pace, step for step, as they "move double" with those below, on their way to



where the half-piled rick is seen on the opposite bank; and ever from where the grass still stands uncut, comes the loud creak of the landrail, still heard at the same distance, however near we may draw, for the bird seems to glide as noiselessly through the verdure as an eel does along the water.

Sometimes during our rambles beside the river in this pleasant month, we may catch a glimpse of the otter in pursuit of its prey, now stemming the rapid current, and breaking the foam-hells amid the eddies, as he swims to and fro, then darting down in the direction of the stream with the rapidity of an arrow, or again disappearing in the twinkling of an eye, and ere one can number twenty, rising up at an immense distance from the spot where it went down, and hearing a large fish in its jaws, as it cleaves its way towards the shore; when beginning at the head, it quickly eats its way down to the tail of the fish, until the whole is devoured. The attitude of the otter in water is really beautiful; its short legs and web-footed feet, its long flattened body, and broad tail by which it can steer itself in any direction it pleases in a moment, together with its broad flat head, are all admirably adapted for swimming, and enable it to turn aside and float as rapidly under the water as when on the surface—frequently, while under the river, it will drive a shoal of fish towards the shore, narrowing the circle every time it swims round them, until, finding they cannot escape, they throw themselves out of the water, and become an easy prey to their pursuer. Sometimes, beside a quiet stream, you come unawares upon the little water-shrew, as it oars itself gently along, its black glossy back shining like velvet, looking, after it has dived for a moment, as if it were covered all over with beautiful white pearls, then in an instant as smooth, and dry, and glittering, as if its silken coat had never touched the stream. When alarmed, it either rushes into its little nest, or plunges to the bottom of the water for safety, although, if you watch narrowly, it will not be long before you see its little sharp snout and long whiskers peeping out above the surface; for it is compelled to re-appear quickly, and draw in a fresh supply of air. In hautilful contrast to its deep glossy back, its under parts are of the cleanest and clearest white; and while it swims, its smooth silky sides seem to broaden out, and its tail to shift suddenly as it turns about in its rapid motions, in pursuit of the insects that feed upon the aquatic plants, so that it is almost impossible for the eye to catch the rapid changes of its tiny rudder-like tail, as it amuses itself by swimming round and round the floating leaves that are suspended from the drooping spray. The dancing motion of the foliage caused by the rippling of the eddies, and the elegant attitude of the little swimmer, as he is borne away a moment by the current, then makes head against it in an instant, then keeps gliding in and out between the leaves of the drooping branch, form as pleasing a picture as the dreaming eye of a poet, or patiently watching naturalist would wish to alight upon.

The blossoms are already falling from the trees, and the milk-white buds of the fragrant hawthorn seem as if rusting away, and in the waysides and gardens the flowers of Summer begin to hlow, in the places of those which are disappearing with the Spring. Nor must we pass over the beauty of the grasses which are now in flower, many of them drooping and rising in the richest forms of silken tracery, plumed and pendent, here running out into the form of a beautiful branch, there resembling the most graceful foliage; and when brought home and examined apart from the gaudier-looking flowers, many will be astonished at the silken heads of the graceful quaking-grass, and the floating plumage of the downy-feather grass, and many another which for delicacy of tint, and beauty of form, are worthy of being placed beside the fairest flowers that grace our garden borders.

At the close of this month the "green-robed senators of mighty woods" are clothed in all the beauty of their Summer array, and those who wish to know what the gloom and silence of a full-leaved forest is, should penetrate its shades before the end of July, when the whole scene is shadowed with its deepest Summer verdure. They will then see in what graceful forms the dark masses of foliage hang, what beautiful effects of light and shade are to be found amongst the trees—here an impenetrable wall of branches, dark as the grave; there, the whole side of a long range of trees, fluttering in a sunlight of golden green, and descending into hues of bronzy brown, until all below fades into the deep purple hue of twilight; excepting where, bald and bare, the silver light streams down from a white and fleecy cloud, and falling upon the trunk of some giant tree covered over with hoary lichen, gives to the mighty mass a dazzling and silvery hue. For this is

Nature's ancient cathedral, where  
The lute-voiced birds—burst of the summer band—  
Green-hooded nuns, 'mid the blossoms sing—  
Their leafy temple gloomy, tall and grand,  
Pillared with oaks, and roofed with Heaven's own hand.  
Hark how the anthem rolls through arches dun,  
"Morning again is come to light the land."  
The great world's Comforter, the mighty Sun,  
Hath yoked his restless steeds the golden race to run.

The pale gold of the woodbine, and the pearly blossoms of the trailing hramble, mingled with the drooping crimson of the fox-glove, and the dazzling sunshine of the gorse, throw their beautiful masses of colour upon the green of the underwood, and lie in bright relief beneath the vaulted gloom of the overhanging branches—and sometimes you hear the lowing of cattle amid the deep umbrage, or the tinkling of sheep-bells in the remote distance; sounds that come like a cheerful voice amid the silence and solitude of the forest; and sometimes you find yourself standing

Under an oak, whose antique root peeps out  
Upon the brook that brawls along the wood.

And in such a spot, with a volume of Chaucer or Spenser, Shakspeare or Milton, or any other, out of a hundred names that tremble upon the point of our pen, the hours will glide happily away, and the intellectual wanderer pine for no other companionship.

The whole face of the country now wears a most beautiful appearance; here the corn is already beginning to show its ears, there the meadows are mown and cleared away—further on, the grass still stands in all its rich luxuriance of flowers. The tall bugle is in full bloom—and all the orchises, from those that resemble the bee to the hutterfly, are in blossom, looking as if they were weighed down by the crowded insects from whence they derive their names.

Both in Summer and Winter, all who have narrowly observed the changes of the seasons, must have been struck by the abundant moisture found under trees. Pace only a common footpath, dry, high, gravelly or sandy, on a frosty morning after the sun has shone for an hour or so, and wherever a tree overhangs your walk, there, the ground is saturated with wet, while all beside is comparatively dry. So it is in June—in foggy weather, beneath the trees the road is a perfect puddle, when all the land around is dry as a desert, especially if it is covered with ivy. In hilly countries too, we find ponds, which are not overhung with foliage, empty and dry, while others which are shaded with branches, that are filled with water, and nearly everywhere is this the case, unless the pools draw their supplies from springs. Those who travel in the night are well acquainted

with the quantity of moisture which descends in the form of dew or fog, and that scarcely leaves a trace of its "whereabout," excepting on the trees and plants, an hour after the sunrise.

Moist and damp places naturally call up the figures of frogs and toads, "nasty things," as pretty mouths are in the habit of puckering up and calling them. I will not argue that they are the most agreeable-looking objects, nor very likely to be made pets of, though this has been done before now, and by ladies too. All I wish to prove is, that they are perfectly harmless, and inoffensive. They are beautiful leapers and expert swimmers, and I am sure I have seen frogs so exquisitely marked, that the finest lady in the land would have coveted a dress that was variegated with such rich black and yellow greens, as I have seen the frog wear. Nor is there a more useful creature in a garden than a toad—he is unequalled as a destroyer of worms and insects, and may be rendered so tame that he will take his food out of the hand of his keeper; as to its being poisonous that is a foolish idea, long since exploded. Watch a toad when it is about to seize upon an insect, and its method of attack will astonish you—the insect is, perhaps, motionless, when it first arrests the eye of the reptile—the toad sees it, and becomes motionless, also, its head drawn back and its eye fixed and bright as a star. The insect moves, and is gone, how you know not, so rapid is the action, that, however narrowly you might watch, you could not see the toad strike it with its tongue—a touch, a motion quicker than human sight, and the prey disappears. Few animals have more persecutors than the poor frog; little or big it is either the prey of bird, beast, or fish, as if it was only created to be devoured. Surely it ought to meet with mercy at our hands, for, according to the theory of the author of "Vestiges of Creation," it is more nearly allied to us than "we wot of," and Esop it will be remembered made it long ago an eloquent pleader against persecution. For my own part, I have always made it a rule during my walks, either to step aside, or wait until either the poor heetle or frog have got out of my way, or else to lift them amongst the grass, where I thought they would be safe, but never to kill either the one or the other willfully upon its own frechold. The toads are such venerable old hermits, too; living, nobody can tell how long, in the hollows of trees, and blocks of stone, and deep down in dark coal pits; and, like the fly in amher, sadly puzzling our poor ingenuity to tell how ever they came there at all.

In a work which has just fallen into my hands, entitled "Illustrations of Instinct deduced from the Habits of British Animals," there are some striking instances almost provog that animals are gifted with a reasoning power, which, though inferior to that of man, clearly shows that they at least form a link in that great intellectual chain which extends from the created to the Creator. I have not sufficient space to do more than recommend this interesting book to all lovers of Nature. The following extract will go far to prove that, what to the human eye may appear useless or unnecessary, will be found to answer a wiser end than that of mere ornament; and I am sure my readers will look upon the gaudy plumage of the peacock with other thoughts than that it is nothing more than a "luxuriance of Nature," after reading the following brief extract:—

"The tail of the peacock is of a plain and humble description, and seems to be of no other use besides aiding in the erection of the long feathers of the loins; while the latter are supplied at their insertion with an arrangement of voluntary muscles, which contribute to their elevation, and to the other motions of which they are capable. If surprised by a foe, the peacock presently erects its gorgeous feathers; and the enemy at once beholds starting up before him a creature which his terror cannot fail to magnify into the bulk implied by the circumference of a glittering circle of the most dazzling hues, his attention at the same time being distracted by a hundred glaring eyes meeting his gaze in every direction. A hiss from the head in the centre, which in shape and colours resembles that of a serpent, and a rustle from the trembling quills, are attended by an advance of the most conspicuous portion of this bulk; which is in itself an action of retreat, being caused by a receding motion of the body of the bird. That must be a bold animal which does not pause at the sight of such an object; and a short interval is sufficient to ensure the safety of the bird: but if, after all, the enemy should be bold enough to risk an assault, it is most likely that its eagerness or rage would be spent on the glittering appendages, in which case the creature is div's ed only of that which a little time will again supply. A like explanation may be offered of the use of the long and curious appendages of the head and neck of various kinds of humming-birds, which, however feeble, are a pagination' race."







M	W	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE.				EQUA- TION OF TIME.	Day of the Year.
			Rises.	Sets.	DECLINA- TION SOUTH.		Rises. Morning.	Souths. Afternoon.	Sets. Afternoon.		Before Sunrise. O'Clock. 1h. 2h. 3h.	Moon's Age.	After Sunset. O'Clock. 9h. 10h. 11h.		Morning	Afternoon		Add.		
1	S	Regulus sets at 10h. 31m. P.M.	3 50	8 17	23 6		4 44	0 35	8 21						1 52	2 19	3 30	183		
2	S	2ND S. AFT. TRIN	3 50	8 17	23 2		5 49	1 31	9 3						2 45	3 10	3 42	184		
3	M	Dog Days begin	3 51	8 16	22 57		6 58	2 24	9 38						3 30	3 50	3 53	185		
4	Th	Trans. St. Martin.	3 52	8 15	22 52		8 8	3 14	10 7						4 15	4 35	4 4	186		
5	W	Oxford Act. and Camb. commences	3 53	8 14	22 46		9 16	4 1	10 34						4 55	5 15	4 15	187		
6	Th	Old Mids. Day	3 54	8 14	22 40		10 22	4 46	10 59						5 35	6 0	4 25	188		
7	F	Camb. Term ends	3 55	8 13	22 34		11 27	5 29	11 22						6 20	6 40	4 35	189		
8	S	Oxford Term ends	3 56	8 13	22 27		Afternoon	6 12	11 45						7 5	7 30	4 44	190		
9	S	3RD S. AFT. TRIN.	3 57	8 12	22 20		1 32	6 55	Morning						7 55	8 20	4 53	191		
10	M	Spica Virginie sets 11h. 15m. P.M.	3 58	8 12	22 13		2 34	7 39	0 10						8 55	9 23	5 2	192		
11	Th	Old St. Peter	3 59	8 11	22 5		3 35	8 25	0 38						9 55	10 25	5 10	193		
12	W	Antares souths 8h 57m. P.M.	4 0	8 11	21 56		4 35	9 12	1 9						11 0	11 30	5 17	194		
13	Th	Alpha Lyra souths 11h. 4m. P.M.	4 1	8 10	21 48		5 31	10 1	1 46						No Tide.	At Noon.	5 25	195		
14	F	Length of day, 16h. 7m.	4 2	8 9	21 38		6 23	10 51	2 28						0 25	0 50	5 31	196		
15	S	St. Swithun	4 3	8 9	21 29		7 12	11 43	3 19						1 15	1 35	5 38	197		
16	S	4TH S. AFT. TRIN.	4 4	8 8	21 20		7 54	Morning	4 17						1 55	2 15	5 43	198		
17	M	—a memorable day in the Turkish Calendar, being the beginning of the Hæ- ra, or Mohammed in Era	4 5	8 7	21 9		8 31	0 34	5 20						2 35	2 55	5 48	199		
18	Th	Prs. Aug. Camb. b.	4 6	8 6	20 58		9 3	1 26	6 28						3 15	3 35	5 53	200		
19	W	Margaret	4 7	8 5	20 48		9 31	2 17	7 40						3 52	4 10	5 57	201		
20	Th	Gammas Aquilæ souths 11h. 33m. P.M.	4 8	8 3	20 37		10 26	3 8	8 55						4 30	4 50	6 1	202		
21	F	Magdalene	4 9	8 2	20 25		10 56	3 58	10 8						5 10	5 35	6 4	203		
22	S	5TH S. AFT. TRIN.	4 11	8 0	20 13		11 26	4 49	11 23						5 55	6 20	6 6	204		
23	S	[Camb. b. 1797	4 12	7 59	20 1		11 26	5 41	Afternoon						6 45	7 10	6 8	205		
24	M	St James. Duch.	4 13	7 57	19 49		Morning	6 35	1 54						7 40	8 10	6 10	206		
25	Th	St Anne	4 15	7 56	19 36		0 2	7 30	3 8						8 45	9 20	6 11	207		
26	W	Revolution in Pa- ris, 1830, lasted three days	4 16	7 54	19 23		0 44	8 27	4 16						9 55	10 30	6 11	208		
27	Th	Beta Aquilæ souths 11h. 27m. P.M.	4 18	7 53	19 9		1 32	9 24	5 18						11 10	11 50	6 11	209		
28	F	6TH S. AFT. TRIN.	4 19	7 51	18 55		2 28	10 22	6 12						No Tide.	0 20	6 10	210		
29	S	Alpha Aquilæ souths 11h. 4m. P.M.	4 21	7 50	18 41		3 31	11 18	6 58						0 50	1 20	6 8	211		
30	S		4 23	7 48	18 27		4 39	Afternoon	7 38						1 45	2 10	6 6	212		
31	M		4 24	7 46	18 12		5 45	1 4	8 10						2 35	2 55	6 4	213		



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## JULY.

THE SUN is in the sign Cancer till the 22nd; on which day at 7h. 8m. P.M., he enters the sign Leo (the Lion).

On the 1st, he is 96,595,000 miles from the Earth, being at his greatest distance on this day during the year.

On the 1st, he rises 3° N. of the N.E. by N., and sets 3° N. of N.W. by N.; on the 20th, he rises N.E. by N., and sets N.W. by N.

He souths on the 1st, at 3m. 30s.; on the 15th, at 5m. 38s.; and on the last, at 6m. 4s. after noon (common clock time); at an altitude of 61° on the 1st; of 59° on the 15th; and of 56½° on the last day.

THE MOON rises between 4h. A.M. and noon, from the 1st to the 7th; between noon and midnight, from the 8th to the 24th; and between midnight and 6h. A.M., from the 25th to the 31st. She sets between 8h. P.M. and midnight, from the 1st to the 8th; between midnight and noon, from the 9th to the 23rd; and between noon and 9h. P.M., from the 23rd to the 31st.

She is in the constellation of Gemini on the 1st; in Cancer, on the 2nd; Leo on the 4th, 5th, and 6th; in Virgo from the 6th to the 9th; Libra on the 10th, and 11th; Ophiuchus on the 12th and 13th; on the boundaries of Sagittarius and Aquila on the 14th, 15th, and 16th; in Capricornus on the 17th; in Aquarius on the 18th and 19th; in Pisces on the 20th; Cetus on the 21st; Pisces on the 22nd; Cetus on the 23rd and 24th; Taurus on the 25th, 26th, and 27th; Gemini on the 28th, and 29th; Cancer on the 30th; and Leo on the 31st.

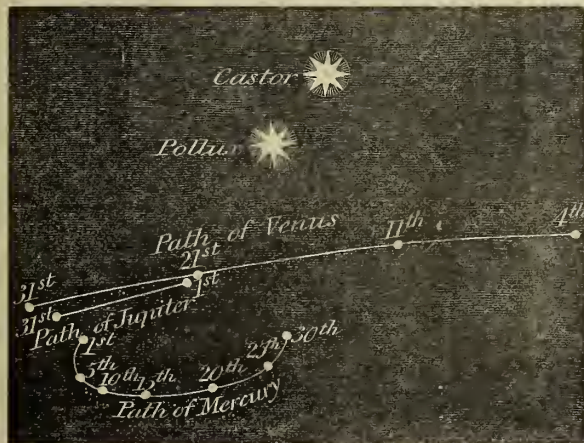
On the 1st she is 55° high, when she souths; is on the Equator on the 7th; at her lowest point on the 14th, being 26° high when she souths; is on the Equator again on the 21st; and on the 27th attains her greatest altitude, being 19° above the horizon when she souths.

She is Full on the 16th, and New on the 30th, but without an eclipse at both times. She is near Jupiter and Mercury on the 2nd; Mars on the 3rd; Saturn on the 21st; Mercury on the 29th; and Jupiter and Venus on the 30th.

MERCURY is in the constellation of Cancer till the 22nd, and in that of Gemini after that time.

He sets on the 1st at 9h. 19m. P.M.; on the 5th at 9h. 0m. P.M.; and these times are 1h. 2m. and 0h. 44m. after the Sun has set; and, therefore, to this time he is favourably situated for observing him; and he sets at the W.N.W. point of the horizon. Between the 11th and the 23rd, he both sets and rises nearly at the same time as the Sun rises and sets. On the 26th he rises at 3h. 44m., and on the 31st at 3h. 17m.; and these times are 32m. and 1h. 7m. before the time of Sun rising respectively; therefore, towards the end of the month, he is again favourably situated for observing before sunrise. He is stationary at the beginning; moving westward about the middle; and stationary again among the stars at the end of the month. He is in inferior conjunction with the Sun on the 19th; and near Jupiter and the Moon on the 2nd. His motion among the stars, and his relative position to Venus and to Jupiter, are shown in the annexed diagram.

PATHS OF MERCURY, VENUS, AND JUPITER, IN JULY, 1848.



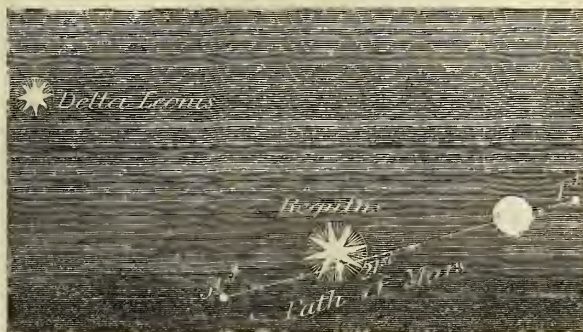
Scale, 10 degrees to one inch.

VENUS will be in the constellation of Gemini till the 17th, and in that of Cancer from the 17th to the end of the month.

She is a morning star till the middle of the month, and an evening star after that time; but during the month she will be in the neighbourhood of the Sun, so as to be visible only for a short time in twilight. She rises on the 1st at 3h. 20m. A.M.; on the 15th, at 3h. 49m. A.M., near the E.N.E.; and, on the last day, she sets at 8h. 1m. P.M. near the W.N.W. She souths on the 1st, at 11h. 38m. A.M.; on the 17th, she passes the Meridian at the same time as the Sun; and on the last day at 0h. 17m. P.M.; at the altitude of 62°, on the 1st; of 61°, on the 15th; and of 57° on the last day. She is near the Moon on the 30th; and on the 20th, she is in superior conjunction with the Sun. On the 24th day, the two Planets, Jupiter and Venus, are very near together. (See the preceding diagram.)

MARS will be in the constellation Leo throughout the month. He is an evening star, and sets midway between the N.W. by N. and the W.N.W. at the beginning; near the W.N.W. at the middle; and midway between the W. by N. and the W.N.W. at the end of the month; at 10h. 9m. P.M. on the 1st; at 9h. 33m. P.M. on the 15th; and at 8h. 47m. P.M. on the 31st. He souths on the 1st, at 2h. 32m. P.M.; and, on the last day at 1h. 46m. P.M. He is near the Moon on the 3rd; and, on the 21st, he is very near Regulus. His path among the stars during this month is shown in the annexed Engraving; his appearance is nearly that of a circle, and he appears small, as is also exhibited in the same Engraving.

PATH OF MARS IN THE MONTH OF JULY, 1848.



Scale, 10 degrees to one inch.

JUPITER will be in the constellation Cancer throughout the month.

He is visible during the evening twilight, near the N.W. by W. point of the horizon, till about the middle of the month; and from this time to the end, he rises, souths, and sets, very nearly at the same times as the Sun rises, souths, and sets, and, consequently, he is not visible. His motion among the stars is Eastward. He is near the Moon on the 30th, and near Venus on the 24th. (See the preceding diagram.)

SATURN will be in the constellation Pisces. He is visible from before midnight till nearly Sunrise. He rises at the same place as in last month; on the 1st, at 11h. 21m. P.M.; on the 11th, at 10h. 28m. P.M.; and on the 30th, at 9h. 27m. P.M. He souths at 4h. 14m. A.M., on the 15th; and sets at about 10h. A.M. He is stationary among the stars at the beginning, and he moves very slowly Westward among them at the end of the month. He is near the Moon on the 20th. His ring is still invisible: the Sun illumines the side of the ring opposite to that on which the Earth is situated during this month.

URANUS rises near E. by N., at about midnight on the 1st; at 1h. 6m. on the 15th; and at 10h. 3m. on the 31st. He souths on the 15th, at 5h. 50m. A.M., at an altitude of 45°.

(Continued from June, relative to Saturn's Ring.)

the ring, which they will be in January, 1848, at which time the southern side of the ring will begin to be visible, and the same phenomena will be repeated, with respect to it, till it arrives at the position G, where the southern side of the ring is the most open. It will be in this position in 1855. The ring, after this time, will contract, and disappear, as before, at A.

Days of the Month.	Length of Day, or number of hours between sunrise and sunset.	Number of Hours and Minutes the Day has decreased since the Longest Day.	Time of Day break, or beginning of Twilight.	Time of Twilight Ending.
1	H. M. 16 27	H. M. 0 5	No real Night, but constant Twilight.	H. M. 11 13
6	16 20	0 12		10 45
11	16 12	0 20		
16	16 4	0 28		
21	15 53	0 39		
26	15 38	0 54	1 1	11 13
31	15 22	1 10	1 26	10 45

### JUPITER'S SATELLITES.

Names of the Satellites.	Right Ascension.	Declination North.

Are not visible, Jupiter being too near to the Sun.

### OCCULTATION OF STARS BY THE MOON.

Names of the Stars.	Magn. tude.	Times of disappearance and re appearance of the Star.	At the dark or bright limb of the Moon.
Theta Libræ	4½	P. H. M. 11 8 57 P.M. 11 9 30 "	Dark Bright
Rho 2 Sagittarii	5½	15 7 58 " 15 9 10 "	Nearly full Moon
A. S. C. 2270	6	15 11 49 " 16 0 41 A.M.	Nearly full Moon
85 Ceti	6	24 1 29 " 24 2 4 "	Bright
Aldebaran	1	26 1 3 "	Dark

### TIMES OF CHANGES OF THE MOON,

And when she is at her greatest distance (Apogee) or at her least distance (Perigee) from the Earth in each Lunation.

	8d.	9h.	30m.	A.M.
FIRST QUARTER ..	16	9	21	A.M.
FULL MOON ..	23	11	28	A.M.
LAST QUARTER ..	30	7	25	A.M.
NEW MOON ..	10	3		A.M.
APOGEE ..	25	5		A.M.
PERIGEE ..				

### RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
1	8h. 17m.	18° 11'	6h. 16m.	23° 39'	9h. 11m.	17° 33'	7h. 55m.	21° 13'	23h. 46m.	3° 52'	1h. 22m.	8° 0'
6	8 19	16 47	6 43	23 32	9 23	16 36	8 0	21 0	23 46	3 52	1 23	8 2
11	8 13	15 54	7 10	23 7	9 35	15 36	8 5	20 47	23 46	3 54	1 23	8 4
16	8 1	15 41	7 37	22 25	9 48	14 33	8 9	20 34	23 46	3 57	1 23	8 5
21	7 47	16 9	8 3	21 26	10 0	13 28	8 14	20 20	23 46	4 0	1 23	8 6
26	7 37	17 7	8 29	20 12	10 11	12 21	8 19	20 6	23 45	4 5	1 23	8 6



COUNTRY SCENES.—JULY.



Joined to the prattle of the purling rills  
Were heard the lowing herds along the vales,  
And flocks, loud bleating from the distant hills,  
Or stock-doves' plain amid the forest deep;  
And still a coil the grasshopper did keep.—*Castle of Indolence.*

To our ears, excepting the songs of the birds, one of the sweetest of summer sounds has been the bleating of sheep, and the distant jingling of their bells, mellowed by the distance, and softened by an intervening river, or a green pastoral valley that went winding round the foot of the hill, on which the flock was grazing. Sometimes, loitering along a stream, we came to a cool spot, where the overhanging trees threw down their pleasant shadows; and in the water, and along the banks, were sheep moving every way, for it was the great sheep-washing day, and nearly all the villagers were assembled. From within and without the wattled-fence, along the brook, and by the neighbouring barns, you hear the creamy bleating of the sheep, as they call to, or answer each other—while the lambs keep up a continuous "haa," plaintive and piteous, and are quite at a loss to discover their dams among the dripping and noisy flock that are congregated on the opposite bank. There you see the swarthy and sun-tanned sons of the soil, standing mid-way in water, their sleeves turned up, and their bare sinewy arms

half buried in the woolly fleece of the sheep they have clutched, and which, by main strength, they submerge over ears; and no sooner is the sheep released from the hands of the first washer, and swimming towards the shore, than it is caught by a second—has another hug and a submerge—is passed to a third, and then the ablution is complete. It then lands among its drenched companions, and they seem to condole with each other, and to ask, in their way, "What is this for?"

Nor is such a scene without its harmless merriment. You see some sturdy little fellow grappling with a great overgrown sheep, which he manages to get to the edge of the water, when overhead they go together, to the great amusement of the bystanders—it being almost difficult to decide which has the silliest look of the two, the sheep or Jack. The peasants on the bank, the white flock contrasting with the green trees above, and the velvet sward below, the bright water, in which the whole picture is mirrored, the village-spire seen beyond the trees, a



grey thatched cottage here and there breaking through the openings of the foliage—all make up one of those quiet English pictures, which we ever, through the "mind's eye," recall with pleasure, when we are miles away from the spot.

Sometimes, we come unawares upon a beautiful village, that stands partly within the entrance of a wood, for so thickly are the outskirts covered with trees that it is difficult to tell where the wood begins in such an embowered and park-like landscape. In such a scene as this, sheep-washing forms so sweet a picture that we envy the power of an Inskipp or a Collins, and sigh because we cannot carry a sketch of it away with us. The cottage-roofs and chimnies are covered with rich liver-trees, fungi, and lichen, of every gorgeous hue, that harmonize beautifully with the stems of the surrounding trees; yet are just rendered distinct enough, by a white-washed or red brick wall, the sunlight that falls upon a diamond-paned window, or the smoke circling up, grey or blue, amid the green, to tell us that many a peaceful English home is nestled amid that "land of ancient trees." In such a spot, you fondly dream that old customs are still kept up—sheep-shearing feasts and harvest-homes, such as we read of in the Holy Bible, and such as David himself witnessed on the sunny slopes of Palestine.

It is now high Summer everywhere; in the deep woods and beneath the shady hedge-rows, in dell and dingle, where a twilight reigns at noon-day, her warm breath has penetrated, and her growing showers fallen. Wherever a root lay buried, or a tiny branch was hidden, there she has been, and hung them over with leaves and flowers; for it mattered not to her whether the eye of man fell upon her beautiful workmanship. There the red fox-gloves hang out their speckled bells; while, overhead, the woodbine throws its trailing banners of floating green, and pale and ruddy gold. By the water-course, we inhale the fragrance of the meadow-sweet, that mingled aroma of hawthorn buds and new-mown hay—for such is the perfume with which this Queen of the Meadows enriches the passing breeze. Then, over all, comes that drowsy overpowering fragrance from a bean-field in full blossom, the very smell of which conjures up images of the fields of Enna and Proserpine among the flowers, which, affrighted, she let fall. On the banks and the hedges, the gracefully-formed convolvulus climbs and twines; and, in the fields, up the tender grasses, the same beautiful flower rears its pinky head, as it entwines the stems, and throws out its delicate scent. The honey, too, throws round everything it comes near its glossy trails, winding quite a contrary way to the convolvulus, as one turns towards the sun, and the other from it. Wherever the eye alights, the ground is covered with flowers, many of them entirely different from what we saw enamelling the banks and waysides at Spring, and looking as if Summer was at a loss which to wear upon her brow, amid such a profusion of beautiful wreaths;—sometimes growing in spots where

The silence there by such a chain is wound,  
That even the busy woodpecker makes stiller by her sound  
The inviolable quietness—

little nooks, where, above our heads, the grey clouds sail away to the far-off hills, as if they were hurrying off to other worlds beyond the horizon, and had only deigned to look down for a moment upon the lovely valley, in which we were idly resting, while looking at the flowers; spots which seem shut out from the world, as if the silence were never disturbed by anything louder than the murmuring of the stream, the rustling of the leaves, or the faint low whispering of the russet-coloured grasses—where green things only grow and wave. For now but few birds are heard, though all are not yet silent—the nightingale has ceased to sing; the cuckoo has left us; and, excepting in the cool morning hours, or when the evening shadows begin to lengthen, we hear not that woodland hurst which went sounding through the flower-opening April, and the hawthorn-breathing May; for in the burning noons of July—

No warbling tongue  
Then talked unto the echo of the groves,  
Only the curled streamer soft chidings kept,  
And little gushes, that from the green leaves swept  
Dry Summer's dust, in fearful whispering stirred,  
As loth to waken any warbling bird.

Only the grasshopper—that "sweet prophet of the summer"—as old Anacreon called it—keeps up "a coil" among the green leaves that shelter it when

All the birds are faint with the hot sun,  
And hide in cooling trees.

Often while looking for summer flowers in the hedge-bottoms and among the ditches you will discover the little hedgehog foraging for insects or snails, and if he find he has not time enough to escape he will roll himself up in a ball with his round bristly coat, like a person who is resolved to stand his ground and meet the worst, whatever that may be, until finding, as he thinks, the danger over, he will again uncoil himself and resume his task, searching for frogs, toads, or even mice; for it is only in such shady places that you will meet with him in the day-time, as his favourite feeding time is in the night. What naturalists assert about his sleeping throughout the whole day is not true, as I, myself, captured one while feeding under an old hedge in Thonock-lane, near Gainsborough, one summer afternoon, tied it up in a handkerchief, brought it home, and kept it a long time on bread and milk, vegetables, or whatever came to hand, for scarcely anything came amiss to it. It is true that it sleeps throughout the winter, but, unlike the dormouse, it is not liable to be awakened by an occasional fine day, neither does it lay up any store of food; but, rolled up into a perfect ball which you might throw many yards without the animal once uncoiling itself, it sleeps securely through frost, snow, wind, or rain, in its little nest, beneath the hollow root of a tree, or some old rabbit burrow in a hole of the bank.

The early garden fruits are now in great perfection—the glossy black currant that hangs like rounded beads beneath its covering of fragrant leaves; the huge gooseberries that scarcely can contain themselves for very ripeness within their glittering green, or red and hairy husks; red and white currants that hang like coral and pearl pendent and gracefully from their broad-leaved boughs; and strawberries that hide under every leaf they can find to shelter them, are all ripe, and ready for the luscious banqueting table of Summer.

Now one of those rural pictures which artists in almost all ages have tried their hands upon, may frequently be seen where a clump of trees overhangs a pond, a stream, or some quiet shadowy pool which the sunbeams can scarcely penetrate. In such a spot may a group of cattle of various colours frequently be seen, standing almost motionless, excepting for the lashing of their tails to and fro, to drive away the swarm of buzzing insects, which are incessantly hovering around and alighting upon the horned herd.

They stand  
Each in his place, save when some warbled beast  
The pressure of the crowd no longer brooks,  
Or, in more vagrant mood, her station quits,  
Restless.

The rye now wears a ripe and yellow look, and the horned harley makes a rustling sound, as its long plumy ears are blown together by the breeze. A white and quivering light plays over the pendulous oats, and the green upon the wheat

becomes whiter and paler every day—all silently proclaiming that the time of harvest is near at hand. The little mole-bills are purple and fragrant with the aromatic odours of the wild thyme, and the rich heath, the Summer livery of treeless hills and mountains, now looks like a crimson carpet which Nature has spread out for the honey-gathering bees to walk upon. All these, which are stretched out in countless millions before the eyes, scarcely do more from their very profusion than arrest the passing glance for a moment. Yet let us take any one, no matter how common, and examine it minutely, and we shall be struck by the grace and beauty of its form. Even the wayside elder, that throws its flowers over almost every stagnant ditch and dusty hedge, whose cream-like bunches of flowers we just glance at, and then pass on, if examined separately, will be found beautifully constructed: draw off a separate blossom, place it upon the palm of the hand, and you will see a marble-looking tripod, standing upon its ivory feet, and presenting an exquisite concave, a five-starred cup of pearl, as chaste in shape as ever emanated from the hand of a Grecian sculptor—a beautiful form which the hand of man has not yet imitated, and such as strikes but the eye of the poet, as he lies idly dreaming upon the grass, picking up, in his indolent mood, the nearest buds which the breeze blows within his reach. Nor is there a more beautifully-marked flower in the garden, than the pencilled geranium that grows wild, or any flower that wears a more delicate golden hue than the yellow, wild, wayside snap-dragon.

In green lanes and quiet shady places the blue speedwell is still seen lingering, as if loth to shake off its azure flowers; as if it still stood listening to the lisping of the young birds which were beginning to climb and flutter among the green hedges. The century, with its pink-starred flowers, now also puts forth its elegant bloom; and the tall wood betony heaves up its rich rose-hued blossoms above the scarlet cup of the time-keeping pimpernel, which opens its lowly hut dazling flowers at its feet.

When the streams are low through the summer droughts, many curious insects may be seen in the water, which would escape the eye when the runnels are swollen with the rains of Winter and Spring. Some of these form curious habitations of stones, shells, hollow seeds, straws, even mud and small particles of wood, which they cement together, forming a vaulted roof, or pent-house, over their heads, and with their buildings on their backs they move about in the little world for which Nature has adapted them, accomplish the ends for which they were created, and then die. Amongst these, stand foremost the caddis-worms, which compose the little cube-like cells they inhabit, out of stones, with all kinds of irregular angles, and such as would baffle the skill of any human architect to fasten together. Yet, all this is done by the little caddis-worm. The smooth side of every stone is placed in the interior, and the whole mass secured together by a cement which the water has not the power to dissolve. Even the portion of the body of the worm which is exposed, is hard and firm, while that part which the cell covers is soft; for so has Nature defended this curious insect. To an unpractised eye, the whole of this wonderful structure would present only the appearance of a piece of reed or straw, which the water had discoloured, while the Naturalist would find in it the little insect, and the perfect habitation formed of many a loose particle as I have described; and which is so smooth and even at the bottom that the tiny architect can move about with its little house upon its back with ease.

The common stickle-hack also forms a nest in which it deposits its eggs, and covers them up. The nest is formed of minute particles of straw, or wood, is not larger round than a shilling, while the ova, which scarcely exceeds the size of a poppy-seed, is of a bright yellow colour. Another of this species, called the fifteen-spined stickle-hack, forms its nest, and deposits its ova in the sea-weeds, which are found suspended from the lower parts of rocks, and which the fish binds together by a white slender thread that resembles silk; and, wet or dry, it stands the action of the wind and sea, and keeps the eggs secure within, either when left dry or while tossed about by the violence of the waves. These eggs have frequently been taken, placed in water, and kept until the small fry have come forth.

The seed that falls upon the ground, again to spring forth in a new form—the rounded dew-drop that feeds the flower—the withered leaf, which the Autumnal rain decays, and forms into a rich nourishment for the huds of the following Spring, though disregarded by us, are all accomplishing their silent mission, and turning round that mighty wheel "on which the seasons roll."







M	D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT				HIGH WATER At LONDON BRIDGE				EQUA- TION OF TIME		Day of the Year
			Rises.	Sets.	DECLINA- TION SOUTH.		aises. Morning.	SOUTH. Afternoon	Sets Afternoon	Before Sunrise O'Clock. 2h 3h. 4h.	Moon's Age.	After Sunset O'Clock. 5h. 9h. 10h.	Morning.	Afternoon	Add.						
1	Tu	Lammas Day. It	4 26	7 45	17 57	6 59	1 52	8 35		2		3 15	3 35	6 9	214						
2	W	was customary on this day	4 27	7 43	17 41	8 6	2 39	9 1		3		3 55	4 15	5 56	215						
3	Th	to offer at the altars of ca- thedrals two young lambs, from the wool of which the	4 28	7 42	17 26	9 11	3 23	9 24		4		4 30	4 50	5 52	216						
4	F	celebrated robe sent by the Pope to individuals called the pallium, was	4 30	7 40	17 10	10 16	4 7	9 49		5		5 10	5 25	5 47	217						
5	S	manufactured	4 32	7 39	16 54	11 18	4 50	10 13		6		5 45	6 0	5 41	218						
6	S	7TH S. APT. TRIN.	4 33	7 37	16 37	Afternoon	5 34	10 40		7		6 20	6 40	5 35	219						
7	M	Transfiguration of our Lord. It is kept as a festi- val both in the Romish and Greek churches, but not by the Church of Eng- land	4 35	7 38	16 20	1 23	6 19	11 9		8		7 5	7 25	5 28	220						
8	Tu		4 36	7 36	16 3	2 22	7 5	11 44		9		7 50	8 20	5 20	221						
9	W		4 38	7 34	15 46	3 19	7 52	Morning		10		8 55	9 30	5 12	222						
10	Th	St. Lawrence	4 39	7 30	15 29	4 14	8 42	0 23		11		10 9	10 45	5 3	223						
11	F	Dog days end	4 41	7 28	15 11	5 4	9 33	1 10		12		11 20	11 55	4 54	224						
12	S		4 42	7 26	14 53	5 49	10 25	2 4		13		No Tide.	0 20	4 44	225						
13	S	8TH S. APT. TRIN.	4 44	7 24	14 34	6 28	11 17	3 5		14		0 50	1 10	4 34	226						
14	M	Queen Dowager born. Old Lammas Day	4 45	7 22	14 16	7 3	Morning	4 12		15		1 33	1 55	4 23	227						
15	Tu	Assump. V. Mary	4 47	7 20	13 57	7 34	0 9	5 23		16		2 15	2 35	4 11	228						
16	W	[born, 1786	4 48	7 18	13 38	8 2	1 1	6 38		17		2 54	3 10	3 59	229						
17	Th	Duchess of Kent,	4 50	7 16	13 19	8 31	1 53	7 54		18		3 35	3 50	3 46	230						
18	F	Antares souths 6h. 31m. r.m.	4 51	7 14	13 0	9 1	2 45	9 11		19		4 10	4 30	3 33	231						
19	S	Alpha Lyre souths 8h. 38m r.m.	4 53	7 12	12 40	9 32	3 38	10 27		20		4 55	5 15	3 20	232						
20	S	9TH S. APT. TRIN.	4 55	7 10	12 20	10 5	4 31	11 42		21		5 35	6 0	3 0	233						
21	M	Gamma Aquile souths 9h. 37m. r.m.	4 56	7 8	12 1	10 44	5 26	Afternoon		22		6 25	6 45	2 51	234						
22	Tu	Alpha Aquile souths 9h. 37m. r.m.	4 58	7 6	11 40	11 29	6 22	2 7		23		7 15	7 45	2 36	235						
23	W	Beta Aquile Souths 9h. 38m r.m.	4 59	7 4	11 20	Morning	7 18	3 10		24		8 20	9 0	2 21	236						
24	Th	St. Bartholomew	5 17	2	10 59	0 22	8 15	4 7		25		9 40	10 20	2 5	237						
25	F	—In 1572, 40,000 Protes- tants murdered in France	5 37	0	10 39	1 21	9 10	4 54		26		11 0	11 40	1 49	238						
26	S	P. Albert b. 1819.	5 46	58	10 13	2 24	10 4	5 34		27		No Tide.	0 15	1 33	239						
27	S	10TH S. APT. TRIN	5 66	56	9 57	3 33	10 56	6 8		28		0 44	1 10	1 16	240						
28	M	St. Augustine	5 86	54	9 36	4 40	11 45	6 37		29		1 35	2 0	0 58	241						
29	Tu	St. John Baptist	5 96	52	9 14	5 49	Afternoon	7 3		30		2 20	2 40	0 41	242						
30	W	This day is observed in the Romish church as the day St. John the Baptist was beheaded	5 106	49	8 53	6 55	1 17	7 28		31		2 55	3 15	0 23	243						
31	Th		5 126	47	8 31	8 1	2 1	7 52				3 33	3 50	0 5	244						



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## AUGUST.

THE SUN is in the sign Leo till the 23rd; on which day, at 1h. 38m. A.M., he enters the sign Virgo (the Virgin.) On the 1st, he is 96,390,000 miles from the Earth. On the 1st, he rises nearly midway between the E.N.E. and N.E. by N., and sets nearly midway between W.N.W. and N.W. by N.; on the 15th, at the E.N.E., and sets at the W.N.W.; and on the last day, he rises 2° N. of E. by N., and sets about 2° N. of W. by N.

He souths on the 1st day, at 6m. 0s.; on the 15th, at 0m. 11s.; and on the last day, at 5s. after noon (common clock time), at an altitude of 56½°, on the 1st; of 52½° on the 15th; and of 47° on the last day.

He is eclipsed on the 28th, but it is invisible in Eng<sup>d</sup> and.

The Moon rises between 7b. A.M. and noon from the 1st to the 5th; between noon and midnight from the 6th to the 22nd; and between midnight and 8h. A.M. from the 24th to the 31st. She sets between 8h. P.M. and midnight from the 1st to the 9th; between midnight and noon from the 9th to the 20th; and between noon and 8h. P.M. from the 21st to the end.

She is in the constellation of Leo on the 1st and 2nd; in Virgo on the 3rd, 4th, and 5th; Libra on the 6th and 7th; in Ophiuchus on the 8th, 9th, and 10th; near Sagittarius on the 11th and 12th; in Capricornus on the 13th; Aquarius on the 14th and 15th; in Pisces and Cetus alternately from the 16th and 20th; in Taurus from the 21st to the 23rd; in Gemini on the 24th and 25th; Cancer on the 26th; Leo on the 27th, 28th, and 29th; and in Virgo on the 30th and 31st.

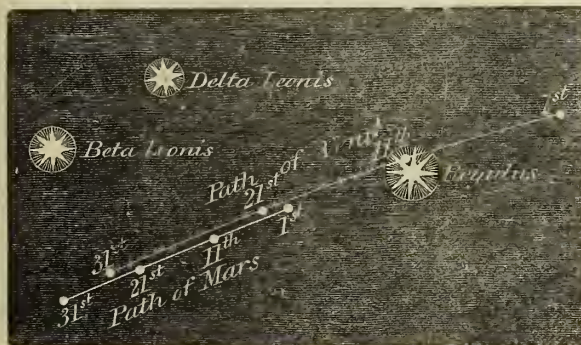
On the 3rd she is on the Equator; on the 11th at her lowest point, being 20° high when she souths; is on the Equator again on the 17th; attains her greatest altitude on the 24th, being 56° high when she souths; and on the 30th, at midnight, she is a third time on the Equator.

She is full on the 14th, and new on the 28th; an Eclipse of the Sun takes place at the latter time, but it is invisible in this country.

She is near Mars on the 1st; Mercury on the 15th; Saturn on the 17th; Uranus on the 19th; Jupiter on the 26th; Mercury on the 28th; Venus on the 29th; and Mars on the 30th.

On the 22nd she occults Aldebaran and several stars—see the 3rd of the following diagrams, which shows the parts of the Moon at which these several stars will disappear and reappear; the former occurring at the bright limb, and the latter at the dark limb of the Moon, as seen in an inverting telescope:—

PATHS OF VENUS AND MARS IN AUGUST, 1848.



Scale, 15 degrees to one inch.

	D. H. M.		D. H. M.
Gamma Tauri will disappear at the place marked	1 at 21 11 27 P.M.	and re-appear at the place marked	2 at 22 0 18 A.M.
Theta 1 Tauri	3 at 22 3 18 A.M.		7 at 22 4 26 A.M.
Theta 2 Tauri	4 at 22 3 23 A.M.		5 at 22 4 20 A.M.
A. S. C. 516	6 at 22 4 24 A.M.		8 at 22 5 35 A.M.
Aldebaran	9 at 22 7 30 A.M.		10 at 22 20 30 A.M.

MERCURY is in the constellation of Gemini from the 1st to the 5th; in Cancer, on the 6th; and in Leo after the 6th.

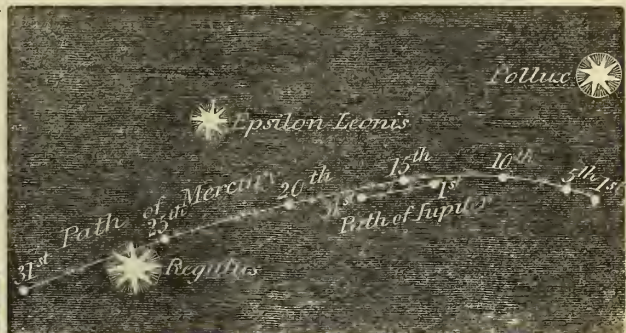
He rises at 3h. 12m., on the 1st; at 3h. 0m. on the 10th; at 3h. 11m. on the 15th; and at 4b. 15m. on the 25th, and till this time he is visible in the mornings, before the Sun rises; on the 1st, 10th, 15th, and 25th, he rises 1h. 14m., 1h. 39m., 1h. 36m., and 0h. 48m., respectively, before Sunrise. The point of the horizon where he rises, is E.N.E. throughout the month. He is moving eastward among the stars. He is at his greatest elongation W. on the 8th. During the

mornings of the 15th and 16th he is very near Jupiter, and they may be readily seen before Sunrise. On the 26th and 27th, he is very near Regulus. (See the first of the following engravings, showing his path and that of Jupiter this month; by reference to the first of the following engravings, it will be seen that, on the 13th, the Planet Venus occupied the same relative position, with respect to the stars, as this Planet does on the 26th and 27th days.)

VENUS will be in the constellation of Cancer till the 3rd; and in Leo from the 3rd till the end of the month.

She is an evening star during the month, and sets at 8h. 0m. on the 1st; at 7h. 42m. on the 15th; and at 7h. 16m. P.M. on the last day, nearly midway between the W. and the W. by N. points of the horizon. She souths on the 1st day, at 0h. 18m. P.M.; on the 15th, at 0h. 31m. P.M.; and on the last day, at 0h. 43m. P.M., at the altitude of 57° on the 1st; decreasing to 44° on the last day. She is near the Moon on the 29th. Mars and Venus are near together towards the end of the month, the latter being the more westerly of the two Planets. The paths of these Planets during the month are shown in the preceding drawing; that of Venus it will be seen is towards Regulus at the beginning of the month, till the 13th, on which day they are separated by a space less than one degree, and after this day the Planet, in her orbit, moves from Regulus, and towards Mars.

PATHS OF MERCURY AND JUPITER IN AUGUST, 1848.

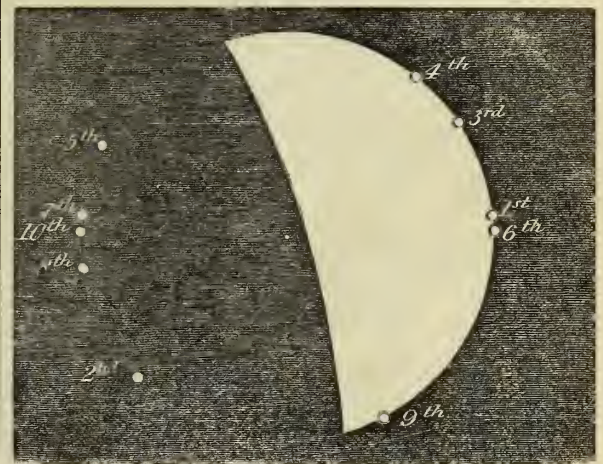


Scale, 15 degrees to one inch.

MARS will be in the constellation Leo till the 27th; and in that of Virgo from the 28th to the 31st.

He is an evening star: he is near the Moon on the 1st and 30th, and he is near Venus towards the end of the month. (See the opposite Engraving.)

OCCULTATIONS OF STARS ON THE 22ND OF AUGUST, 1848.



JUPITER'S SATELLITES.					OCCULTATIONS OF STARS BY THE MOON.			
Days of the Month.	Length of Day, or number of hours between Sunrise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Daybreak, or beginning of Twilight.	Time of Twilight Ending.	Names of the Stars.	Magnitude.	Times of disappearance and reappearance of the Star.	At the dark or bright limb of the Moon.
1	15 19	1 13	1 29	10 40	Gamma Tauri	3½	21 11 27 P.M.	Bright
6	15 4	1 28	1 49	10 20	Theta 1 Tauri	5	22 0 18 A.M.	Dark
11	14 47	1 45	2 7	10 2	Theta 2 Tauri	5½	22 3 18 A.M.	Bright
16	14 30	2 2	2 23	9 43			22 4 26 A.M.	Dark
21	14 12	2 20	2 38	9 26			22 3 23 A.M.	Bright
26	13 54	2 38	2 52	9 10			22 4 20 A.M.	Dark
31	13 35	2 57	3 3	8 56				

Are not visible, Jupiter being too near to the Sun.

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.													
TIMES OF CHANGES OF THE MOON, and when she is at her greatest distance (Apo- gee), or at her least distance (Perigee), from the Earth in each Uouation.	Days of the Month	MERCURY		VE. US.		MARS.		JUPITER.		SATURN.		URANUS.	
		Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion South.	Right Ascension	Declina- tion North.
FIRST QUARTER .. 7d 2h. 57m. A.M.	1	7h. 36m	18° 28'	8h. 59m	18° 24'	10h. 26m	10° 58'	8h. 24m	19° 48'	23h. 44m	4° 12'	1h. 23m	8° 6'
FULL MOON... .. 14 8 16 P.M.	6	7 48	19 21	9 24	16 40	10 38	9 46	8 29	19 32	23 44	4 18	1 23	8 5
LAST QUARTER .. .. 21 4 8 P.M.	11	8 10	19 37	9 48	14 44	10 49	8 33	8 33	19 17	23 43	4 25	1 23	8 4
NEW MOON .. .. 28 7 1 P.M.	16	8 42	18 53	10 12	12 39	11 1	7 19	8 35	19 1	23 42	4 33	1 23	8 2
APOGEE... .. 6 10 P.M.	21	9 20	17 3	10 36	10 25	11 13	6 3	8 42	18 45	23 40	4 41	1 23	8 0
PERIGEE .. .. 19 6 A.M.	26	9 59	14 12	10 59	8 3	11 25	4 46	8 46	18 29	23 39	4 50	1 22	7 58



COUNTRY SCENES.—AUGUST.



Thou shalt hear  
Distant harvest carols clear,  
Rustle of the reaped corn;  
Sweet birds antheming the morn;  
Acorns ripe down-pattering,  
While the Autumn breezes sing.

KEAT'S.

The dark green leaves that garlanded the rosy Summer, now begin to show upon their edges the waning yellow of Autumn; and on the skirts of the forest we can trace those rich hues which are too crimson to live long; that rise like the flushed roses on the consumptive cheek of the lovely maiden, looking too beautiful ever to be allied to death. In the oak, the elm, the chestnut, and the fir, we see the gloomy green, the burnished bronze, the fading yellow, and the dull red, lighted up between with masses of foliage that glitter like gold, all mingled and blended together so richly and harmoniously, that, in the distance, we cannot tell where the dusky green begins, nor the rounded yellow fades away; for leaves of all hues are now fast falling; the most beautiful to form a couch for Summer to lie down and die upon, while others remain behind until they are withered and shrunken by the cold and hollow winds of Autumn, then fall and bury her after she is dead. But there is yet work to be done in the fields; the great harvest has to be reaped and garnered; and now the sun-tanned sickle-bearers sally forth into the fields to cut down the golden grain which the Summer sun has ripened.

Pleasant is it to climb the verdant slope of some gentle hill that goes down with an easy descent into the valley, as if it had paused on its way to make a smooth slope here; and, lower down, to leave a little upland, as if it had there rested awhile, before it threw out the broad valley at its feet, leaving steps by which the wanderer might climb in after years, and view by degrees the beauty of the workmanship of those invisible hands. Delightful is it to ascend these table-lands; one after the other, to pause upon each easily-gained height, to raise ourselves just above the first corn field, where the busy reapers are already at work, their rural and picturesque costumes forming a beautiful contrast to the yellow-waving and wide spread field—to watch them half hurried a moment amid the drooping ears, then to see figure after figure slowly arise, and the ripe corn tied with twisted bands into rounded sheaves, until, at last, the heavy shocks are gathered, and, above, the stubby and furrowed lands heave up at equal distances little stacks of early corn, which, with their ten thousand of plummy heads, are still looking cheerfully up towards heaven; then to climb the next range, which commands a view, wide out across the valley, and to see



patches of green and yellow in alternate contrast, dotted with gleaners and reapers—men, women, and children—sprinkled over the landscape, where horses are moving, and waggon laden with corn, grind down the ridgy glebe, as they rock like ships upon a sea, over the uneven furrows, and, like them, seem to roll along without a sound; for neither the creaking of wheels, nor the tramping of hoofs, is heard from the green slope which we have ascended. Nearer at hand, yet still far out below our feet, we behold the thatched grange, peeping from its little nest of trees, and can see the long or rounded stacks slowly rising higher, as the waggons come full and glide away empty; for there are human figures busy upon the corn-ricks; and the end of the hough, which, but a few minutes before, seemed resting upon the sky, is shut out by the piled sheaves which rise up so slowly and silently, that we can just perceive them grow, by keeping the eye riveted upon the increasing pile.

Higher we climb to the topmost ridge, where the eye ranges over the whole outstretched scene, to where afar off the distant hills melt dimly into the sky; and the soft outline is lost in the silvery mist of the clouds. A spire and village, a lonely grange, that seems to have wandered away by itself into the fields, are all missed out beneath our feet; and the long hedgerows that bound the green pastures seem but higher masses of taller grass, with here and there a bush arising above them, for so are the trees dwarfed by the vast distance from which we gaze; and where between the corn-fields the same dark boundaries run, they look like little banks of green rising in Spring along a yellow fallow, a sunlit land, upon which no green thing hath as yet sprung up; amid which little cottages occasionally arise, whose sloping roofs seem almost to touch the verdureless ground, so deeply are they buried in that ocean of golden corn; and sometimes the head of a human figure peeps up, then is lost again, as if something dark was washed slowly along, above the dreamy and yellow waves. But we must descend, and thread our way through the narrow lanes, where the high hedgerows have a tall toll of the laden waggons as they passed; and here and there hung their boughs with drooping ears—a feast for the few birds that yet linger behind, and occasionally cheer the fading green of their summer chambers with a song. Up comes the great rumbling wagon, filling up the whole road above and below, and we are glad to scramble up a bank, or shelter in a gateway that leads to some field, to let it pass; or we meet it at the turning of a village, see the reflection of the sheaves cast for a few moments upon the cool bright pond; it then passes on by the low grey churchyard wall, where death is ever slowly gathering in his harvest;—round the two yew-trees which stand like gloomy sentinels at the gate, under the tall coffin-looking elms that shut out the turning of the road, and then is lost to the sight.

Now the broad fern arrests the eye with its russet-coloured leaves; and in shady places we find rich groups of fungi and agarics, stained with the deepest orange, rich crimson, gold of the clearest hue, spotted and sprinkled and starred with silver, and clothed in gaudier colours than the richest flower that ever opened its fragrant petals to the sunshine. Others again lie like huge snow-balls among the grass, as if some tiny urchin had rolled them there on the previous winter, and the giant bulk, which far outgrew his strength, had not yet melted away.

The autumn-crocus, which our ancestors set so much store by, as it supplied them with the saffron they used in dyeing, is now in bloom; and, in moist shady places, the wild mint may be found, with its round and lilac-coloured flowers, which fill the air around with an overpowering fragrance, and are musical with the hum of hundreds of congregated bees. The lavender, also, puts forth its twilight blossoms, looking, when in flower, like a vast moorland covered with heather, over which the last sun-ray is fading before the night drops down; for so does the sombre purple blend with the pinky hues, that throw a shifting and uncertain light over a lavender-field in fall bloom. By the dry banks where the little green grasshopper still chithers, the blue and graceful harebell now blows; its delicate and azure cups trembling at every dallying breeze that breathes, as if they were ever afraid of being torn away from the fragile stem. On the waysides, we meet with the large ox-eyed daisy, that grows side by side with the gandy poppy, and where, saving the wild tansy, no other green or flowery thing shoots up amid the arid and broken ground. Wherever we look, we see the tall, golden rod, baring its yellow flowers to the sunshine; and, below, the beautiful eye-bright, nestling like an insect among the grass, its white wings interlaced with streaks of green and gold. In the corn-fields we find the rich red-coloured pheasant's eye, which our great-grandmothers called roe-a-ruhy, and considered one of the most beautiful of Summer's last flowers. By the sides of streams we find the arrow head, gazing tranquilly at its own shadow in the water, as if, like Narcissus of old, it was never weary of looking upon its three-leaved white pearled flower, with its eye of purple and gold. Our old favourite, the pimpernel, is also still out, counting the hours, which the meadow sweet still lingers behind to cheer with its perfume as they pass. In the hedgerows we find the green and crimson berries of the woody nightshade, hanging in bright and gushing clusters among the purple flowers which are still in bloom; while the ruddy hawthorn-berries begin to appear, as if May had carried with her all her delicate pearls, and Autumn, in remembrance of her loveliness, had hung the bowers her hearty once adorned, with pendant rubies.

The nest of that smallest of all British animals may now occasionally be found securely attached about midway to two or three corn-stems; for so small and light, and graceful is this little animal, that it can run with ease up the rounded straw without shaking the heavy ear that surmounts it. Two of them, when full-grown, will scarcely weigh a quarter of an ounce; and the nest, which you might enclose and shut up in the palm of your hand, is almost as round and perfect as the ball which has been turned in a lathe; and though sometimes containing as many as eight or nine young ones, may be rolled across a table without discomposing a single blade of grass or leaf of which it is formed. How this tiny creature contrives to give nourishment to so many young ones, crowded, as they are, in so small a compass, was a puzzle to that clear-headed English naturalist, Gilbert White, and he came at last to the conclusion that she must make holes in different parts of the nest, and feed them one at a time. If kept in a cage it will feed upon corn, lap water like a dog, and amuse itself like a white mouse or a squirrel, by turning round a wheel. From the head to the tail it scarcely exceeds two inches in length. Among quadrupeds it may be classed as the least and most beautiful, as the humming-bird is amongst the feathered tribes.

Swallows, at the close of this month, begin to assemble by the sides of rivers, and prepare for their departure. There is a noise from morning until night amongst the willows. They are ever wheeling to and fro in search of food, then returning to the same spot, when the evening shadows begin to darken, to roost. They seem as if loth to go, yet are afraid to remain. There is an evident uneasiness amongst them, like tenants who have received notice to quit, and can no longer look upon the houses in which they have passed so many happy hours as their own. The sweet rivers and green meadows of Old England have still a charm for them, and fain would they, were it not for our bleak Winters, remain with us all the year. So have we interpreted their twitterings, as we have watched them for hours in our younger days, while idling happily along the banks—now throwing in the line where we saw the fish playing—then stooping down to gather some beautiful autumn flower; or listening to the sounds which were

ever falling upon the ear, while we exclaimed—

How sweet those rural sounds float by the hill.  
The grasshopper's shrill chirp rings o'er the ground,  
The tingling sheep-hells are but seldom still,  
The clapping gate closes with hollow bound;  
There's music in the church clock's measured sound.

"It is now," says the "Mirror of the Months," that debateable ground of the year which is situated upon the confines of Summer and Autumn; it is dressed in half the flowers of the one, and half the fruits of the other; it has a sky and temperature all its own, which vie in beauty with those of the Spring. May itself can offer nothing so sweet to the senses, so enchanting to the imagination, and so soothing to the heart, as that genial influence which arises from the sights, the sounds, and the associations connected with an August evening in the country, when the occupations and pleasures of the day are done. There is no delight equal to that felt by a true lover of Nature, when he looks forth upon her open face silently, at a season like the present, and drinks in that still beauty which seems to emanate from everything he sees, till his whole senses are steeped in a sweet forgetfulness. The whole face of Nature since last month has undergone an obvious change. Everything is still green: but it is not the fresh and tender green of Spring, nor the full and satisfying, though somewhat dull green of Summer; but many greens that blend all those belonging to the above-named seasons."

There is a peculiar beauty about the fields at the close of August, where the hay has been cleared off early, and the second crops of grass have sprung up. They look like a rich green velvet carpet, for there are now but few flowers to break up the sweep of the smooth emerald surface. On the trees, too, we behold a new crop of leaves, as tender and delicate in hue as those which first burst from the buds and trembled in the mild breezes of May. It seems as if the foliage of Summer and Spring were blended together, for the buds wear the same pale April green. At a first glance, the young leaves do not strike the eye: you imagine that the sunshine falls brighter upon these patches of foliage, until you see that it is impossible for the Sun-rays to light up the branches in such a direction: and it is then that you discover this new bursting of tender leaves—that you have found out "a new delight."

Nothing can exceed the beauty of the sky at this season of the year. The deep blue of boasted Italy cannot surpass the azure vault in which the silver clouds now seem to lie and dream, while the sunsets of Autumn are magnificent. And as we gaze we call up those visionary palaces which rise up in the pages of the Arabian Nights, and almost fancy that we see thrown open, the great ruby-pillared and golden gates of heaven. And the moonlight, though no longer cheered by the dulcet harmony of the nightingale, has a peculiar charm at this season; nor is there a grander object than the broad round harvest moon, heaving up bright and full above high green-shouldered hills, while

All heaven and earth are still, though not in sleep,  
But breathless, as we grow when feeling most.

The ladybirds are now seen in hundreds; and this last summer, clouds of them came over from the coast of France, and were swept from off our piers into the sea. There is also a beautiful little blue butterfly now abroad, that goes flitting like a pea-blossom from flower to flower, and sometimes seems to mount the harebell as if only to rock itself for a few moments, and then again depart to alight upon the distant heather. Sometimes the woodlark rises in this "season of mist and mellow fruitfulness," singing like the lark in Spring, as it soars. Nor is the rich-toned blackbird, nor the speckled thrush, as yet silent; while the linnets and whinchats keep up their merry song, as if Summer, instead of departing, was only just making her appearance. But this chorus only breaks out when the weather is unusually fine, and the month of August is in its infancy. Amongst moths, the spotted wood-leopard may now be seen; and the goat-moth, whose larva pierces the knotted ball of the giant oak, is now abroad: while the splendid tiger-moth expands its gorgeous wings; but these are only to be found in spots where

the birch  
Displays its glossy stem amidst the gloom  
Of alders and jagged fern, and evermore  
Waves her light pensive foliage, as the wood  
The passing gale to whisper fancies.







M D	W D	ANNIVERSARIES, OCCUR- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.				HIGH WATER At LONDON BRIDGE		EQUA- TION OF TIME.		Day of the Year.								
			Rises.	SETS.	DECLINA- TION NORTH.	Rises. Morning.	Souths. Afternoon.	SETS. Afternoon.	Before Sunrise.			Moon's Age.	After Sunset.			Morning.		Afternoon.	M.	S.					
			H.	M.	H.	M.	Deg. Min.	H.	M.	H.	M.	O'Clock. 2h. 4h. 5h.				O'Clock. 7h. 8h. 10h.			H.	M.	H.	M.	N.	S.	
1	F	St. Giles' [O.S.	5	15	6	44	8 9	9 5	2	45	8 16				1				4	5	4	20	0	14	245
2	S	Lond. burnt 1666,	5	16	6	42	7 47	10 8	3	29	8 42				2				4	35	4	55	0	33	246
3	S	11TH S. AFT. TRIN	5	17	6	40	7 25	11 10	4	13	9 10				3				5	10	5	25	0	52	247
4	M	Alpha Lyrae souths at 7h 36m F.M.	5	18	6	38	7 3	Afternoon	4	58	9 41				4				5	45	6	0	1	12	248
5	Tu	Old St. Barthol	5	20	6	36	6 41	1 8	5	45	10 19				5				6	20	6	40	1	31	249
6	W	Gamma Aquilae souths 33m F.M.	5	22	6	34	6 19	2 3	6	33	11 2				6				7	0	7	30	1	51	250
7	Th	Emurehus	5	23	6	32	5 56	2 54	7	22	11 51				7				8	0	8	40	2	11	251
8	F	Nat. of B.V. Mary	5	25	6	30	5 34	3 40	8	13	Morning.				8				9	15	10	0	2	32	252
9	S	Alpha Aquilae souths 8h. 26m F.M.	5	27	6	28	5 11	4 22	9	4	0 49				9				10	35	11	15	2	52	253
10	S	12TH S. AFT. TRIN	5	28	6	25	4 48	4 58	9 56	1 52					10				11	50	No Tide.		3	13	254
11	M	Length of Day, 12h. 53m.	5	30	6	23	4 25	5 32	10 49	3 1					11				0	15	0	40	3	34	255
12	Tu	Length of Night, 11h. 10m.	5	31	6	21	4 2	6 2	11 42	4 14					12				1	5	1	30	3	55	256
13	W	Total Ecl. of Moon	5	33	6	19	3 39	6 32	Morning.	5 32					13				1	50	2	10	4	16	257
14	Th	Holy Cross	5	35	6	17	3 16	7 1	0 35	6 51					14				2	30	2	50	4	37	258
15	F	Beta Aquilae souths 8h. 9m F.M.	5	36	6	14	2 53	7 32	1 29	8 8					15				3	10	3	30	4	58	259
16	S	[Lambert	5	38	6	12	2 30	8 5	2 24	9 29					16				3	50	4	10	5	19	260
17	S	13TH S. AFT. TRIN	5	39	6	9	2 7	8 44	3 20	10 46					17				4	30	4	50	5	41	261
18	M	Geo. I. & II. landed	5	40	6	7	1 43	9 28	4 17	11 58					18				5	15	5	40	6	2	262
19	Tu	Fomalhaut souths 9h. 53m. F.M.	5	42	6	5	1 20	10 19	5 14	Afternoon					19				6	0	6	25	6	23	263
20	W	Ember Week	5	44	6	2	0 57	11 15	6 11	2 3					20				6	55	7	25	6	44	264
21	Th	St. Matthew	5	46	6	0	0 33	Morning.	7 6	2 53					21				8	0	8	40	7	5	265
22	F	Aut. Quart. begins	5	48	5	58	0 10	0 17	8 0	3 35					22				9	25	10	10	7	26	266
23	S	Autumnal Equinox.	5	50	5	56	South.	1 22	8 51	4 9					23				10	50	11	30	7	47	267
24	S	14TH S. AFT. TRIN	5	51	5	54	0 37	2 29	9 40	4 39					24				No Tide.	0	5		8	7	268
25	M	[Holyrood	5	53	5	52	1 0	3 37	10 27	5 6					25				0	30	0	55	8	28	269
26	Tu	St. Cyprian. Old	5	55	5	49	1 24	4 43	11 13	5 31					26				1	15	1	40	8	48	270
27	W	Length of Day, 11h. 50m.	5	57	5	47	1 47	5 49	11 57	5 55					27				1	55	2	15	9	8	271
28	Th	Length of Night, 12h. 14m.	5	59	5	45	2 10	6 53	Afternoon	6 20					28				2	30	2	50	9	28	272
29	F	Michaelmas Day	6	0	5	42	2 34	7 57	1 24	6 43					29				3	5	3	20	9	47	273
30	S	St. Jerome.	6	1	5	39	2 57	8 58	2 8	7 10					30				3	37	3	52	10	7	274



## THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## SEPTEMBER.

THE SUN is in the sign Virgo till the 22nd; on which day, at 10h. 18m. P.M., he enters the sign Libra (the Balance) and Autumn commences.

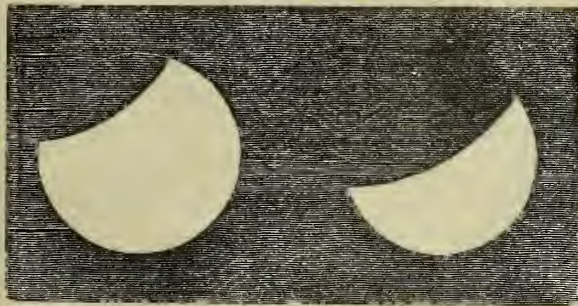
On the 1st he is 95,810,000 miles from the Earth. On the 1st he rises near E. by N., and sets near W. by N. On the 23rd he rises in the E., and sets W., and after this time he rises and sets south of these points.

He souths on the first, 14 seconds before noon. On the 15th, 4m. 58s.; and on the last day, 10m. 6s. before noon (common clock time), at an altitude of 46°, on the 1st; of 38°, on the 22nd; and 35°, on the last day. On the 22nd, at 10h. P.M., he is on the Equator. He is eclipsed on the 26th, but it is not visible in England.

The Moon rises before midnight from the 1st to the 3rd; between midnight and noon from the 5th to the 20th; and between noon and 9h. P.M., after the 22nd. She sets between 8h. P.M. and midnight from the 1st to the 7th; between midnight and noon from the 8th to the 19th; and between noon and 7h. P.M. from the 19th to the 30th.

She is in the constellation of Virgo on the 1st; in Libra, on the 2nd, 3rd, and 4th; in Ophiuchus, on the 5th and 6th; near Sagittarius and Aquila, on the 7th and 8th; in Capricornus, on the 9th; in Aquarius, on the 10th, 11th, and 12th; in Pisces and Cetus, alternately, from the 13th to the 16th; in Taurus, on the 17th, 18th, and 19th; in Gemini, on the 20th, and part of the 21st, on which day she passes into Cancer; she is in Leo on the 23rd, 24th, and 25th; in Virgo, from the 26th to the 29th; and in Libra, on the 30th. On the 1st she is situated 6° S. of the Equator; on the 7th, she is at her lowest point, and is 19 deg. above the horizon, on southing; is on the Equator on the 14th; at her greatest altitude on the 20th, being 56 deg. above the horizon when she souths; is on the Equator on the 26th; and on the 30th, is situated 14° S. of the Equator.

APPEARANCE OF THE MOON DURING THE TOTAL ECLIPSE, SEPTEMBER 13, 1848, PRECEDING TOTALITY.



At 4h 45m. A.M.

Fig. 1.

At 5h. 0m. A.M.

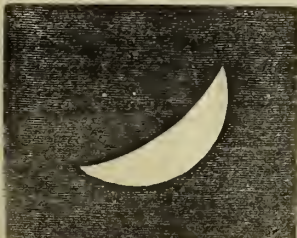


FIG. 2.—At 5h. 15m. A.M.

She is full on the 13th, at which time a total eclipse of the Moon takes place, a part of which is visible in England. (See below.) She is new on the 27th, and an Eclipse of the Sun takes place, but it is invisible at this part of the earth.

She is near Saturn on the 13th; Jupiter, on the 23rd; Mars, on the 27th; and Mercury and Venus, on the 28th.

The Eclipse of the Moon on the 13th day, begins at 4h. 31m. A.M., and the successive appearances of the Moon are exhibited in the annexed drawings.

At 5h. 30m. A.M. the Moon will be totally Eclipsed, and at 5h. 32m. A.M., she sets, so that no more of this Eclipse will be seen here.

MERCURY is in the constellation of Leo till the 7th; and in that of Virgo, after the 7th.

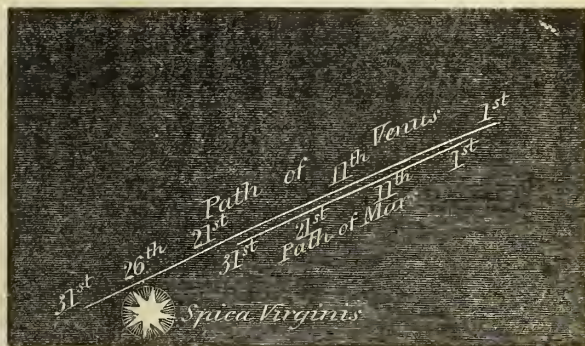
He sets on the 1st, at 6h. 55m.; on the 15th, at 6h. 36m.; and on the 30th, at 6h. 6m.; and these times are 11m., 22m., and 27m., respectively, after sunset; he is, therefore, not favourably situated for observation throughout this month.

He is moving eastward among the stars. He is in superior conjunction with the Sun on the 2nd. On the 26th, he is very near Spica Virginis.

VENUS will be in the constellation of Leo, on the 1st; and in that of Virgo after that time.

She is an evening star, and sets at 7h. 13m., on the 1st; at 6h. 45m., on the 15th; and at 6h. 16m. P.M., on the last day, near the west point of the horizon. She souths on the 1st, at 0h. 43m. P.M.; on the 15th, at 0h. 51m. P.M.; and at 1h. 1m. P.M., on the last day, at the altitude of 44° on the 1st, decreasing to 29° on the last day. She is near Mercury and the Moon on the 28th. On the 7th, she is very near Mars; the two Planets continue near to each other during the first 20 days of this month. Their paths are shown in the annexed diagram, and it will be seen that Venus is very near Spica Virginis on the 26th.

PATHS OF VENUS AND MARS IN SEPTEMBER, 1848.



Scale, 15 degrees to one inch.

MARS will be in the constellation of Virgo throughout the month.

He is an evening star, and sets near the W. by N. at the beginning; near the W. at the middle; and near the W. by S. at the end of the month; at 7h. 16m. P.M., on the 1st; at 6h. 35m. P.M., on the 15th; and at 5h. 50m. P.M., on the 30th; these times follow those of the Sun setting on the same days by 32, 21, and 11 minutes, respectively. He souths at 0h. 56m. P.M., on the 1st; and at 0h. 10m., P.M., on the 30th. He is near the Moon on the 27th. He is near Venus all the month, particularly so on the 7th.

JUPITER will be in the constellation Cancer, till the 24th, and in that of Leo, from the 25th to the end of the month.

He is a morning star, and rises near the E.N.E., on the 1st, at 2h. 19m. A.M.; on the 15th, at 1h. 49m. A.M.; and on the 30th, at 1h. 5m. A.M. He souths on the 15th, at 9h. 25m. A.M., and sets about 2h. P.M. His motion among the stars is eastward. He is near the Moon on the 23rd. He has now moved considerably to the left of Castor and Pollux.

SATURN will be in the constellation Pisces. He is an evening star, and rises on the 1st, at 7h. 15m. P.M.; on the 14th, at 6h. 18m. P.M., exactly at the same time as the Sun sets; and on the last day he rises 22 minutes before the Sun sets. He souths at an altitude of 33° nearly on every day, and sets at the time of Sunrise. His motion among the stars is slowly westward. He is near the Moon on the 13th. On the 3rd the plane of the ring passes through the centre of the Sun, or in other words its thin edge is opposite to the Sun, and after this time the Sun and Earth are on the same side of the ring, and with powerful telescopes it may be seen; it continues so till the 12th, when the edge of the ring is again directed to the Earth, and we look at its thin edge only, and consequently it is again invisible. After this time to the end of the year, the Sun and Earth are on different sides of the ring, and in looking at Saturn we look at its dark side. The ring will be invisible from this time to the end of the year.

URANUS rises near E. by N., at 7h. 56m., P.M., on the 1st; and at 6h. 0m. P.M. on the last day. He souths at 1h. 43m. P.M. on the 15th.

SOLAR SPOTS.—At times spots appear upon the disc of the Sun, but these times of appearance are so uncertain that there is no certainty in obtaining a view of them. They first make their appearance on the eastern limb, and remain visible for several days. These spots have a black centre of several thousand miles in diameter, whilst the extent of the whole spot, including the surrounding penumbra, is such that its diameter is frequently from 30,000 to 50,000 miles.

Days of the Month.		Length of Day, or number of hours between Sunset and Sunrise.		Number of hours and minutes the day has decreased since the Longest Day.		Time of Daybreak, or beginning of Twilight.		Time of Twilight ending.		JUPITER'S SATELLITES.					OCULTATIONS OF STARS BY THE MOON.				
										Eclipses of					Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Stars.	At the dark or bright limb of the Moon.	
										1st Sat.		2nd Sat.							
										Immersion.		Immersion.							
1	H. M.	H. M.	H. M.	H. M.	H. M.	D. H. M.	D. H. M.	Tau. 1 Geminorum	6	D. H. M.		Dark							
6	13 29	3 3	3 6	8 52	8 38	7 3 56 A.M.	10 3 34 A.M.	The Planet is near the horizon at this time.											
11	13 12	3 20	3 17	8 22	23 2 12 "														
16	12 53	3 29	3 29	8 9			3rd Sat.												
21	12 34	3 58	3 39	7 55															
26	12 14	4 18	3 50	7 43															
30	11 54	4 38	3 58	7 33															
	11 38	4 54	4 5				25 4 45 A.M.												
TIMES OF CHANGES OF THE MOON,																			
And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.																			
Days of the Month.		MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.							
		Right Ascension	Declination North. South.	Right Ascension	Declination North. South.	Right Ascension	Declination North. South.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.						
FIRST QUARTER	.. 5D.	8H.	43M. P.M.	1	10h. 43m	9° 57'	11h. 26m	5° 7'	11h. 39m	3° 12'	8h. 51m	18° 10'	23h. 38m	5° 1'	1h. 22m	7° 54'			
FULL MOON ..	.. 13	6	18 A.M.	6	11 18	6 5	11 49	2 35	11 51	1 54	8 56	17 54	23 36	5 10	1 21	7 51			
LAST QUARTER	.. 19	9	58 P.M.	11	11 51	2 9	12 12	0 2	12 2	0 34	9 0	17 37	23 35	5 20	1 20	7 47			
															1 20				
NEW MOON ..	.. 27	9	35 A.M.	16	12 21	1 43 S	12 34	2 32 S	12 14	0 45 S	9 4	17 22	23 33	5 29		7 44			
APOGEE ..	.. 3	5	P.M.	21	12 50	5 26	12 57	5 5	12 26	2 5	9 7	17 6	23 32	5 38	1 19	7 40			
PERIGEE ..	.. 15	3	P.M.	26	13 17	8 56	13 20	7 36	12 38	3 25	9 11	16 51	23 31	5 47	1 18	7 35			

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

First Quarter	5d. 8h. 43m. P.M.
Full Moon	13 6 18 A.M.
Last Quarter	19 9 58 P.M.
New Moon	27 9 35 A.M.
Apogee	3 5 P.M.
Perigee	15 3 P.M.

Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension.	Declination North. South.	Right Ascension.	Declination North. South.	Right Ascension.	Declination North. South.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
1	10h. 43m.	9° 57'	11h. 26m.	5° 7'	11h. 39m.	3° 12'	8h. 51m.	18° 10'	23h. 38m.	5° 1'	1h. 22m.	7° 54'
6	11 18	6 5	11 49	2 35	11 51	1 54	8 56	17 54	23 36	5 10	1 21	7 51
11	11 51	2 9	12 12	0 12	12 2	0 34	9 0	17 37	23 35	5 20	1 20	7 47
16	12 21	1 43 S	12 34	2 32 S	12 14	0 45 S	9 4	17 22	23 33	5 29	1 20	7 44
21	12 50	5 26	12 57	5 5	12 26	2 5	9 7	17 6	23 32	5 38	1 19	7 40
26	13 17	8 56	13 20	7 36	12 38	3 25	9 11	16 51	23 31	5 47	1 18	7 35





With ruddy fruit the orchard now is hung,  
The golden hood o'erpeas in the breeze.  
For Autumn from her ample hand hath thrown  
Her richest treasures on the laden trees.—*Hæthorndale Revisited.*

AUTUMN, yet with her hand grasped in the feeble clasp of Summer, as if the latter was loth to depart, while there is still so much green hanging about the woods, and so much blue and sunshine about the sky and earth. But the leaves are rustling in the forest paths, the harvest-fields are silent, and the heavy fruit that bows down the branches, proclaim that the labour of Summer is ended—that her yellow-robed sister has come to gather in and garner the rich treasures she has left behind. Beautiful are the old English orchards during this month, with their gnarled and twisted branches, and moss-covered stems, standing upon a thick carpet of grass, that looks green all the year long—a verdant sward, spread purposely for the fruit to fall upon, when they have drunk in their fill of mellowness, and dyed their cheeks with the rosy hues of the sunshine. Pleasant is it to look upon these fine old deformed trees, whose shoulders are round and backs are bent, through the heavy loads which they have borne year after year, and who still seem to glory in their hale and hearty old age, and to boast of the weighty hurbens which have sunk their grey old heads, yet still left such sunny streaks behind. What forgotten feasts have they supplied! What old-fashioned,

heavy, oaken tables have they helped to furnish, sending forth, a century ago, high-piled dishes of rich, ruddy, and golden-rinded fruit to the happy guests, who now lie in the village churchyard, opposite the moss-covered orchard wall—yet so near, that Spring sometimes blows her blossoms upon their graves—perhaps on the narrow bed of the “grey forefather” who first planted that hoary stem. What merry voices have sounded within that ancient enclosure! The glad shout of childhood—the silvery laugh of the modest maiden—the deep-chested choros of the bluff old farmer—all met to gather into the dry and wide store rooms, the weighty fruit that ever came of its own accord, and neither asked for man’s attendance or labour.

Now rustic groups may be seen wandering far away to the woods and sunny lanes, to gather blackberries and nuts; and these are amongst the pleasantest of all Autumn excursions. What wild places do we sometimes stumble upon during these rambles! Some such we have now in our eyes, which we visited years ago, which we had to make our way to through narrow paths, hemmed in with



broad fern and prickly gorse bushes, many of which rose high as our heads—for they had never been cut down within the memory of man. And every now and then we came to the old hedgerows, covered with golden and silver-coloured moss, and dark through the clouds of sloes and bullaces that grew above, and the huge carved-like ebony blackberries that hung below. There are few such hedges to be found now; for many and many a year had they grown on, and no one had heeded them. The bramble had spread out before, and the sloe bushes behind; and the hawthorns and crab-trees had gone on deepening, Summer after Summer, until the hunter was compelled to draw his rein when he approached them; for they had at last formed such an impenetrable barrier, that neither

Dint of hoof, nor print of foot,  
Did mark that wild luxurious soil—  
No sign of travel or of toil.

What haunts were these for the Naturalist! Here he might rest concealed for hours, and watch the habits of beasts, birds, and insects—see them feed, build, and burrow—lead forth their young from spray to spray—and note a many things which are now slowly finding their way into books. Such spots called up the England of ancient days, when the skin-clad Briton, with his javelin in his hand, and his long hair blown back, pursued the chase through the wooded wilderness; ages before the Roman galleys had ploughed up the sand on our storm-beaten shores. They filled the mind with poetic images, such as seldom float before the eye in walled cities—such as only rise up where Nature still reigns in all her primitive grandeur. I rambled through them, and dreamed of the old Autumns which reigned over England a thousand years ago—pictured the forests which Harold marched through, when he met William of Normandy on the field of Hastings—and heard the tramp of the Saxons as they passed for the last time over those ancient fields.

'Twas a wild spot; for there old legends say,  
In former days, a Druid's altar stood.  
And huge, grey stones are stretched out every way  
Among the moss-grown stems of that wild wood.

This is the month that partridge-shooting commences; and many an eager sportsman now hurries off to the empty corn-fields, to waken those echoes which, but a week or two ago, rang back the song of the reaper, with the roll of his murderous gun. Not, we trust, that all are tempted by the work of destruction alone; for we believe that numbers go with as keen an appetite for the beauties of nature as we ourselves possess. Yet there is something very spirit-stirring in this manly sport—in the attitude of the dog as he throws up his head, and makes a dead stop—in the pleasure with which he sets out to seek the bird after the shot is fired. After all, I prefer seeing the old birds at the head of their young ones, as they half fly and half run, about the close of Summer, hiding themselves among the corn or long grass, until the intruder has passed. I never looked upon the beautiful plumage, so richly diversified with brown, black, and ash-colour, without regret, when I saw all these mingled hues dabbled with blood; to me it was ever "a sorry sight."

Hop-picking is about one of the last, and the most beautiful of rural employments. There is something so green and clean about a hop-plantation, and such a soothing aroma arises from the smell of the bine, that it seems like the last sweet smell that Summer has left behind. Nor can anything be more graceful than the drooping vine-shaped leaves, and the golden cones, that have twined in all kinds of fantastic shapes around the tapering poles. What picturesque groups do we see at work! What a gipsy-like encampment has every little family formed! While picking, washing, cooking, and nursing all go on together in harmony at the same time. And a pretty picture did we once see of an innocent child, asleep in its little crib—while on its rounded face the shadows of the hop-leaves flickered and played in the trembling sunbeams—

Like the last smile of Autumn,  
Beaming above the yellow woods.

I have often fancied that a herd of deer never appear more beautiful than when seen, amid the changing foliage of Autumn, either standing or lying down. They harmonise with the brown russet hue of the fern, above which their lofty antlers and graceful necks arise with a forest-like majesty—all in keeping with the rich and varied tints of the verdurous roof above their heads. How stately they seem to march between the broad avenues of trees; and how fine is the attitude when, with outstretched neck, one pauses to reach the red cluster of hawthorn berries which just sweep below the tips of his antlers. But, above all, how beautiful to see them crossing a sheet of water, that spreads out like a mirror in some ancient English park.

We now see riding leisurely upon the air the light and graceful downs of the dandelion and thistle, gliding noiselessly along, like transparent and winged insects, now alighting for a moment upon the leaves, then floating away high up in the clear air, until they become invisible to the eye. Spanning from branch to branch, we see the light, silken network of the spider bending in the breeze, while the little mechanist sits safely in the centre of his own mazy structure, his airy walls beaded with pearl—for such seem the rounded dew-drops that glitter on the star-like points of the closely intersected wheel on which he rests. We see the bee moving drowsily and listlessly along, like a weary traveller who almost despairs of reaching his next resting-place, so wide apart now lie the road-side flowers—those beautiful half-way houses which he met at every step, as he went singing merrily on his way through the land of Summer. Hope, who looked with a cheerful countenance upon the landscape of Spring, has departed; instead of watching each green and flowery object day by day as they budded and blossomed, we now see only the traces of slow and sure decay, the green fading bit by bit, until the leaves become like the skeleton wings of an insect, the wind blowing through those places which were before marked with azure, and crimson, and gold. The Sun himself seems growing older; he rises later from his bed in the morning, and returns to rest earlier in the evening, and seems not to have that strength which he possessed when he rose in the youthful vigour of Spring, and the bright and cheerful manhood of Summer; for his golden eyes seem clouded, and his breath thick and heavy, as he struggles through the surrounding fog. All these are marks of the seasons, telling us that the year is growing grey, and slowly tottering towards the darkness and grave-like silence of Winter.

But September brings with it one great rural holiday to those who keep Nature's carnival, and enjoy the changes of the seasons. To us, who dwell in the neighbourhood of old woods, our Nutting-day was an excursion often talked of for weeks before it arrived. It was the pleasantest of all our gipsy feasts, for it was held in the centre of a wild wood, in one of Nature's own summer-houses, in a bower, not by art,

But by the trees' own inclination made.

A spot which, even to reach, we had to pass through one of Earth's Paradises; for never did more beautiful hills rise up above a pastoral country, than those we ascended on our way to the woods. No grim board ever dis-graced those ancient oaks, warning the lover of nature not to trespass; for, excepting the underwood, and the wild fruits, there was nothing we could have carried off there,

for the bole of the smallest tree would have been a load for half a dozen horses. Game we meddled not with, and this the old Squire well knew; we trampled nothing down but the entangling thicket, bramble, and sloe, and hazel, and wild rose, which generally took toll of our drapery as we passed, giving a scratch for a pressure, and a rent for a tug, which only increased our merriment the more. There was ever some lady's shawl to disentangle; some heavy and well-filled basket to extricate from the bushes; a long rent to pin up; a trailing brier to cut away, before we could pass further; a brook to leap, and a circle to take, which sometimes only led to more impenetrable shades; a stray companion to hunt up, whose "whereabout" was only known from the direction in which the voice came, for these petty perils were the very charms of Nutting. What stooping, and creeping, and pulling, and dragging, was there, where neither gig nor chaise could move a foot, unless the wild underwood and weeds had been cleared. Then what a beautiful glade we at last came to; one which the foot of man had seldom passed; which the richest carpet that was ever spread out never exceeded in softness—the very turf was elastic; it had been formed by the fallen leaves of many centuries. And the oak that stood in the centre! You marvelled how a single stem could bear such majestic branches; for Architecture, with all the skill and means of art, could never invent a pillar to support such a projecting weight, as that which sprang from the bole of a single tree. At the foot of this venerable monarch of the forest we piled our baskets and bottles, doffed all superfluous drapery, then sallied into the thicket with our hooked sticks, to drag down the hazel boughs, and strip them of their brown shellers, which fell from out the deep bordered cups, as the boughs were shaken. As we wish to make all true worshippers of Nature acquainted with Browne's "Britannicus Pastorals," we shall present them with another rural picture. The scene is "Nutting," and this exquisite word-painting was first produced about the close of the reign of Queen Elizabeth.

A wandering boy sets out to gather nuts,  
A hooked pole he from a hazel cuts;  
Now throws it here, then there, to take some  
hold,  
But bootless and in vain; the rocky mold  
Admits no cranny where his hazel hook  
Might promise him a step; till, in a nook  
Somewhat above his reach, he hath espied  
A little oak; and having often tried  
To catch a bough, with standing on his toe,  
Or leaping up, yet not prevailing so,  
He rolls a stone towards the little tree,  
Then, getting on it, fastens warily

His pole into a bough, and at his drawing,  
The early rising crow with clamorous caw-  
ing,  
Leaving the green bough, flies about the rock,  
Whilst twenty twenty couples to him flock.  
And now within his reach the thin leaves  
were;  
With one hand only then he holds his staff,  
And with the other grasping, first the leaves,  
A pretty though he in his hand receives;  
Then to his girdle making fast the hook,  
His other hand another bough hath took;  
His first a third, and that, another gives,  
To bring him to the place.

We must not pass over the beauty of sea-side scenery at this season of the year, for we are children of the ocean; and, next to our matchless English landscapes, do we love the rocks that guard, and the waves that are ever washing around our lovely island. Pleasant is it now to stand upon some tall headland, and watch the ever-moving waves, as they roll through the shifting shadows of the clouds, purple, and green, and golden, onward and onward, until they are lost among the indistinct haziness of the distant sky. Then how solemnly falls upon the ear that never-ceasing murmur of the waves—that voice which for countless ages has never been silent, but day and night, for evermore, beats time with its melancholy music upon the pebbly beach. Or to walk under the tall white cliffs, which have stood for undated centuries, above! above! when that wide sea was mastless, and neither the shadow of man nor ship had ever been mirrored upon its waves; for even then they stood, as they do now, reflecting back the bright autumnal sunshine. Like things of life, the tiny fishing-boats mount above the waves, diminishing in the distance until they appear mere specks—until you can only just discern the spots of light which indicate the white sails, and you can almost fancy that they are "Birds of calm brooding on the charmed wave." What great golden pathways seem at times to stretch over the deep—reaching to the very verge of the sky—smooth to appearance, yet, when trodden, rough and perilous, as that which the pilgrim traverses on his way to the shrine of his saint—on his journey towards Heaven. Who can imagine those terrible convulsions which severed England from the opposite coast of France; that stormy hour, when the sea rushed in between—when the manmoth and the mastodon stood moaning upon the severed cliffs; and no human eye beheld that mighty crash? Who that gazes upon the sea can for one moment doubt that such changes have taken place?







M D	W D	ANNIVERSARIES, OCCU- RENCES, FESTIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE				EQUA- TION OF TIME Subtrac	Day of the Year.
			Rises.	Sets.	DECLINA- TION South.	Deg. Min.	Rises.	Sets.	Souths.	Sets.	Before Sunrise	After Sunset.	O'Clock.	O'Clock.	Morning.	Afternoon	M.	S.		
			H. M.	H. M.	H. M.		H. M.	H. M.	H. M.	H. M.	2h. 4h. 5h.	7h. 8h. 10h.	7h. 8h. 10h.	H. M.	H. M.	H. M.	M.	S.		
1	S	15TH S.AFT. TRIN	6 25	36	3 21		9 59	2 53	7 42						4 5	4 22	10 25		275	
2	M	Alpha Lyræ souths 5h. 56m. P.M.	6 45	34	3 44		10 58	3 39	8 16						4 35	4 55	10 44		276	
3	Tu	Old St. Matthew	6 65	31	4 7		11 54	4 26	8 56						5 10	5 25	11 3		277	
4	W	Length of Day, 11h. 21m.	6 85	29	4 30		Afternoon	5 14	9 42						5 45	6 5	11 21		278	
5	Th	Length of Night, 12h. 41m	6 105	26	4 53		1 33	6 3	10 35						6 25	6 50	11 39		279	
6	F	Faith	6 125	24	5 17		2 16	6 53	11 34						7 20	7 50	11 56		280	
7	S	Gamma Aquilæ souths at 6h. 32m. P.M.	6 135	22	5 40		2 54	7 43	Morning.						8 35	9 15	12 13		281	
8	S	16TH S.AFT. TRIN	6 155	19	6 2		3 29	8 35	0 39						9 55	10 35	12 30		282	
9	M	St. Denys beg.	6 175	17	6 25		3 59	9 26	1 50						11 15	11 45	12 46		283	
10	Tu	Oxford. and Cam. T.	6 185	15	6 48		4 28	10 19	3 3						No Tide.	0 10	13 2		284	
11	W	Old Michaelm. Day	6 205	13	7 11		4 57	11 13	4 21						0 35	0 55	13 17		285	
12	Th	Alpha Aquilæ souths 6h. 17m. P.M.	6 215	10	7 33		5 29	Morning.	5 41						1 20	1 40	13 32		286	
13	F	Trans. K. Ed. Con.	6 235	8	7 56		6 2	0 9	7 3						2 0	2 25	13 46		287	
14	S	Beta Aquilæ souths 6h. 14m. P.M.	6 255	6	8 18		6 39	1 6	8 23						2 45	3 5	14 0		288	
15	S	17TH S.AFT. TRIN	6 265	4	8 40		7 22	2 5	9 41						3 30	3 50	14 13		289	
16	M	Fomalhart souths 9h. 6m P.M.	6 285	2	9 3		8 12	3 4	10 52						4 10	4 35	14 26		290	
17	Tu	Etheldreda	6 295	0	9 25		9 8	4 3	11 56						5 0	5 20	14 38		291	
18	W	St. Luke. This	6 314	58	9 46		10 10	5 1	Afternoon						5 45	6 10	14 49		292	
19	Th	Evangelist was the author of the Gospel of St. Luke and the Acts of the Apostles. He was a disciple and follower of St. Paul.	6 334	56	10 8		11 16	5 56	1 34						6 40	7 10	15 0		293	
20	F		6 354	54	10 30		Morning.	6 49	2 12						7 45	8 25	15 10		294	
21	S		6 374	52	10 51		0 23	7 38	2 43						9 5	9 50	15 20		295	
22	S	18TH S.AFT. TRIN	6 384	50	11 12		1 30	8 26	3 11						10 30	11 5	15 29		296	
23	M	Alpha Pegasi souths 5h. 43m. P.M.	6 404	48	11 34		2 35	9 11	3 36						11 40	No Tide.	15 37		297	
24	Tu	Alpha Andromedæ souths 9h. 46m. P.M.	6 424	46	11 54		3 39	9 55	4 0						0 5	0 30	15 44		298	
25	W	St. Crispin	6 434	44	12 15		4 43	10 38	4 23						0 55	1 15	15 51		299	
26	Th	This day was formerly a great festival with shoe- makers, who claimed this saint as their patron.	6 454	42	12 36		5 49	11 22	4 47						1 30	1 50	15 57		300	
27	F		6 474	40	12 56		6 49	Afternoon	5 13						2 4	2 20	16 2		301	
28	S	St. Sim. & St. Jude	6 494	38	13 16		7 51	0 50	5 42						2 35	2 55	16 6		302	
29	S	19TH S.AFT. TRIN	6 514	37	13 36		8 51	1 35	6 15						3 10	3 25	16 10		303	
30	M		6 534	35	13 56		9 48	2 22	6 53						3 40	3 55	16 13		304	
31	Tu	Allhallows Eve	6 554	34	14 15		10 41	3 9	7 37						4 15	4 25	16 15		305	



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## OCTOBER.

THE SUN is in the sign Libra till the 23rd; on which day, at 6h. 34m. P.M., he enters the sign Scorpio (the Scorpion.)

On the 1st he is 95,190,000 miles from the earth. On the 1st he rises midway between the E. and E. by S., and sets midway between the W. and W. by S.; on the 11th, he rises at the E. by S., and sets at the W. by S.; and on the 14th, he rises at the E.S.E.; and sets at the W.S.W. points of the horizon.

He souths on the 1st, at 10m. 25s.; on the 15th, at 14m. 13s.; and on the 31st, at 16m. 15s. before noon (common clock time), at an altitude of 35° on the first, and of 24° on the last day.

The Moon rises before noon till the 4th; between noon and midnight from the 5th to the 20th; and between midnight and 11h. A.M., after the 21st. She sets between 7h. P.M. and midnight till the 6th; between midnight and noon from the 7th to the 17th; and between noon and 8h. P.M. after the 18th.

She is in the constellation of Libra, on the 1st; in Ophiuchus, on the 2nd and 3rd; she is moving on the boundaries of Sagittarius and Aquila, on the 4th, 5th, and 6th; in Capricornus, on the 7th; in Aquarius, on the 8th and 9th; in Pisces and Cetns, alternately, from the 10th to the 14th; in Taurus, on the 15th and 16th; in Gemini, on the 17th and 18th; in Cancer, on the 19th and 20th; in Leo, on the 21st, 22nd, and part of the 23rd; in Virgo, till the 26th; in Libra, on the 27th and 28th; and in Ophiuchus, on the 29th, 30th, and 31st. On the 4th, she is at her lowest point, being 19 deg. high when she souths; is on the Equator, on the 11th; attains her greatest elevation on the 17th, and is 56 degrees high on this day, when she souths; is on the Equator again on the 24th, and on the last day is a second time at her extreme south position, being 20 deg. high when she souths.

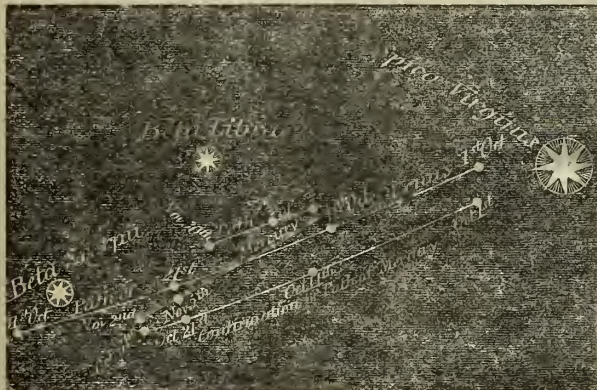
She is full on the 12th, and new on the 27th, but without on eclipse at both times.

She is near Saturn, on the 10th; Uranus, on the 12th; Jupiter, on the 21st; Mars, on the 26th; Mercury, on the 28th; and Venus, on the 29th.

MERCURY is in the constellation of Virgo till the 4th, on which day he passes into Libra.

He sets on the 1st, at 6h. 4m.; on the 15th, at 5h. 36m.; and on the last day, at 4h. 56m.; and these times are 28m., 32m., and 22m., after sunset. The Planet is not favourably situated for observation during this month. He is moving eastward among the stars at the beginning, and he is stationary at the end of the month. He is at his greatest E. elongation on the 18th. At the beginning of the month, he is near Spica Virginis and Venus, and till the 21st these two Planets continue moving nearly parallel to each other. In the following engraving the path of Mercury is shown, during this and the following month. (See the above remarks, and those in November, for the direction of his motion among the stars in connexion with the engraving.)

PATH OF MERCURY IN THE MONTH OF OCTOBER AND NOVEMBER, AND PATH OF VENUS IN OCTOBER, 1848.



Scale, 15 degrees to one inch.

VENUS will be in the constellation of Virgo till the 6th; in that of Libra, from the 7th to the 26th; and in that of Scorpio, from the 27th to the end of the month. She is an evening star, and sets at 6h. 14m., on the 1st; at 5h. 51m., on the

15th; and at 5h. 35m. P.M., on the last day; near the W.S.W. at the beginning, and near the S.W. by S. towards the end of the month.

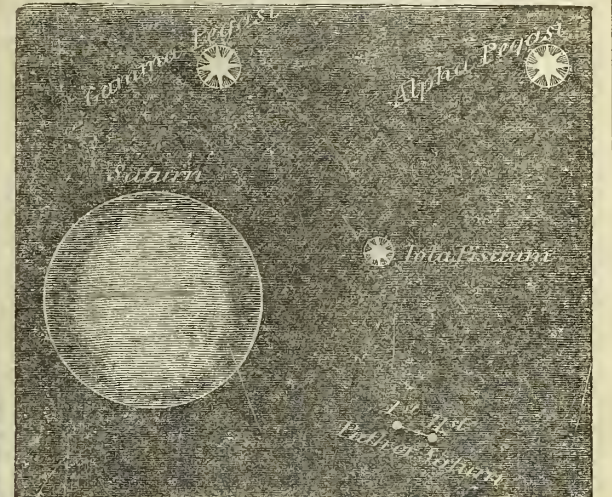
On the 1st she souths, at 1h. 1m. P.M.; at 1h. 13m. P.M., on the 15th; and on the 31st, at 1h. 30m. P.M.; at the altitude of 28° on the 1st, decreasing to 17° on the last day. She is near the Moon on the 25th, and near Mercury from the beginning to the 21st. She is near Spica Virginis on the 1st, and near Beta Scorpii towards the end of the month. These different positions are shown in the preceding engraving.

MARS will be in the constellation of Virgo throughout the month.

He is a morning star, and rises midway between the E. and E. by S. at the beginning; near the E. by S. at the middle, and near the E.S.E. at the end of the month; at 5h. 48m. A.M., on the 1st; at 5h. 9m. A.M., on the 15th; and at 4h. 26m. A.M., on the 31st. He souths at eight minutes after 12 (noon), on the 1st; and at 11h. 26m. A.M., on the 31st. He is near the Moon on the 26th.

JUPITER will be in the constellation Leo throughout the month. He is a morning star, and rises near the E.N.E., at 1h. 2m. A.M., on the 1st; at 0h. 20m. A.M., on the 15th; and at 11h. 24m. P.M., on the 31st. He souths at 7h. A.M., and sets about noon near the middle of the month. His motion among the stars is eastward. He is near the Moon on the 21st.

APPEARANCE AND PATH OF SATURN, SHOWING HIS POSITION WITH RESPECT TO FIXED STARS NEAR HIM IN THE MONTH OF OCTOBER, 1848.



Scale 10 degrees to one inch; the planet is drawn on a scale of 40 seconds of arc to one inch.

SATURN will be in the constellation Pisces. He is an evening star, and rises before the Sun sets. He sets midway between the W. and W. by S., on the 1st, at 4h. 23m. A.M.; on the 15th, at 3h. 23m. A.M.; and on the 31st, at 2h. 16m. A.M. He souths at an altitude of 33° on every day; on the 1st, at 10h. 46m. P.M.; on the 15th, at 9h. 48m. P.M.; and on the 31st, at 8h. 42m. P.M. He moves westward among the stars, but very slowly. He is near the Moon on the 10th. The ring is invisible.

He is the only large Planet now favourably situated for examination in the evenings; from the above times of his southing, it will be seen that he is most favourably situated from 9h. to 11h. P.M., being at those times sufficiently above the impurities of the horizon to be examined.

This object is, beyond a doubt, the most wonderful of all the objects connected with the solar system; and it will be interesting to all persons possessed of telescopes, to examine the Planet this month, shorn as he appears to be of his ring, yet his moons, and changing belts, render it an object of exceeding interest at all times.

His path in the Heavens this month is shown in the annexed diagram; his change of position, however, during the month is so small, that, to the naked eye, he will seem to occupy the same position with respect to the fixed stars.

By reference to the above diagram, it will be seen that Saturn, Gamma Pegasi and Alpha Pegasi form a triangle, of which Saturn occupies the lower angle, and that he is very nearly equally distant from both these stars.

Days of the Month.	JUPITER'S SATELLITES.				OCCULTATIONS OF STARS BY THE MOON.										
	Time of hours and minutes the day has decreased since the Longest Day.				Time of Day-break, or beginning of Twilight.	Time of Twilight ending.	Eclipses of		Names of the Stars.		Magni- tude.	Times of disappearance and re-appearance of the Stars.		or bright limb of the Moon.	
							1st Sat.	3rd Sat.							
	Length of Day, or number of hours between Sun-rise and Sun-set.	H. M.	H. M.	H. M.	H. M.	Immersion.	Em. reion								
1	H. M.	H. M.	H. M.	H. M.	D. H. M.	D. H. M.	85 Ceti	6	D. H. M.	Bright					
6	11 34	4 58	4 8	7 30	16 2 20 A. M.	31 0 35 A. M. I.			13 11 17 P. M.	Dark					
11	11 12	5 20	4 17	7 18	23 4 14 A. M.	31 4 7 A. M. E.			14 0 6 A. M.	Bright					
16	10 53	5 39	4 26	7 7	30 6 7 A. M.		N Tauri	6	16 11 47 P. M.	Dark					
21	10 34	5 58	4 35	6 56					17 0 39 A. M.	Bright					
26	10 15	6 17	4 42	6 46					19 5 50 A. M.	Dark					
31	9 57	6 35	4 49	6 36			1 Cancri	6	19 7 7 A. M.	Dark					
	9 39	6 53	5 2	6 26	12 3 9 A. M.	6 4 11 A. M. I.									
					19 5 44 A. M.	23 2 48 A. M. E.									

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.													
Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		
	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.	
FIRST QUARTER .. 5D.	2H. 1M. P.M.												
FULL MOON ..	12 3 56 P.M.												
LAST QUARTER ..	19 6 28 A.M.												
NEW MOON ..	27 2 46 A.M.												
APOGEE ..	1 10 A.M.												
PERIGEE ..	13 7 P.M.												
APOGEE ..	28 8 P.M.												
1	13h. 44m	12° 11'	13h. 43m	10° 3'	12h. 50m	4° 44'	9h. 15m.	16° 36'	23h. 29m	5° 56'	1h. 18m	7° 31'	
6	14 10	15 7	14 6	12 24	13 2	6 3	9 18	16 21	23 28	6 4	1 17	7 26	
11	14 35	17 40	14 30	14 37	13 15	7 21	9 21	16 8	23 27	6 11	1 16	7 22	
16	14 57	19 46	14 54	16 43	13 27	8 38	9 24	15 55	23 26	6 18	1 16	7 18	
21	15 16	21 17	15 19	18 37	13 40	9 54	9 27	15 43	23 25	6 24	1 15	7 13	
26	15 29	22 1	15 44	20 19	13 53	11 9	9 29	15 31	23 24	6 29	1 14	7 8	



COUNTRY SCENES.—OCTOBER.



The trudging sow leads forth her numerous young,  
Playful, and white, and clean, the briars among;  
And o'er their heads, loud lash'd by furious squalls,  
Bright from their cups the rattling treasure falls.

BLOOMFIELD.

FOREST scenery never looks so beautiful as in Autumn; and at no period of this season can it be seen to better advantage than between the shutting in of September and the opening of October. It is then that Nature seems to have exhausted all the fantastic colours of her palette, and to have scattered her richest red, brown, yellow, and purple, upon the foliage. Every gust of wind that now blows, brings down thousands of golden-coloured acorns, that come pattering like little feet among the fallen leaves, leaving empty their smooth, round, hollow cups, from which the old poets in their fables framed the drinking vessels of the fairies. We need not wander further than the New Forest to witness one of those scenes which Scott, in his "Ivanhoe," has steeped in the sunniest hues of poetry, and where we can see realised the vision of Gurth, the swineherd, tending his noisy and grunting charge, as they feed upon the fattening acorns. It is only amid forest scenery that hogs have a poetical appearance; there is then a clear, silvery look about their bristly hides, which is beautifully brought out by the green of the underwood, and softened by the shadows of the overhanging branches. The picture is also more endeared to us through its antiquity; for, excepting in the change of costume of the swineherd, we know that our old English forests presented just such another scene above a thousand years ago. We find it recorded in the earliest descriptions we possess of the manners and customs of our Saxon forefathers. In Doomsday Book it is frequently mentioned; and, among the old Forest Laws, we find the seasons of mast, and pannage, and fence-month, regu-

lated by Regarders, Verdurers, Agisters, and all those grim guardians of the green wood, who knew

Each lane and every alley green,  
Dingle, or bushy dell of that wild wood,  
And every bosky bourn, from side to side,  
Their daily walks and ancient neighbourhood—

Who were ever wandering about with bolt and bow in hand, ready to shoot a shaft at either dog or man, if they were found trespassing upon the Royal chace.

Those who live on the borders of the forest have the privilege of feeding their hogs upon acorns or beech-mast throughout the month of October, and they are still intrusted to the care of a swineherd as they were in the olden time. The modern Gurth, however, first sets out to reconnoitre the forest; and, having found a shady and favourable spot, where acorns or beech-mast are abundant, and water is near at hand, he next commences erecting a habitation for the reception of his ravenous herd. Having selected some huge, gigantic oak, he encloses a large space around it with a wattled fence, makes a warm bed inside, of fern, weeds, and withered forest grass, then covers it over with branches and entangling underwood. After this is completed, he collects his herd amongst the neighbouring foresters, who generally pay a shilling a head for all they intrust to his care; and, driving them where there is a plentiful supply of food, he allows them to eat their fill, and after this urges them on to the clear water-course,



when, having drank, he forces them back to the large sty he has erected, and leaves them, in all their swinish ease, to repose until the following morning. After a day or two they require but little looking after; for, although they will wander away two or three miles into the depths of the forest, and be divided into numerous parties, yet each division of the herd has its leader, who is sure to return at nightfall, trudging before his followers, to the accustomed resting-place, beneath the huge, broad-branching oak. By the end of the month, the whole herd is in such excellent condition that but little food is required for fattening them before they are slaughtered.

One of the most beautiful pictures in Bloomfield's "Farmer's Boy," is a description of swine coming to drink at the forest-pool, and startling the wild duck from her lonely haunt, who, in her turn, alarms the whole herd by the noise she makes with her wings, as she rises, when

With bristles raised, the sudden noise they hear,  
And ludicrously wild, and wind'd with fear,  
The herd decamp with more than swinish speed,  
And snorting, dash through sedge, and rush, and reed.  
Through tangling thickets heading on they go,  
Then stop, and listen for their fancied foe:  
The himm-most still the growing panic spreads—  
Repeated fright the first alarm succeeds.

Now the villagers are busily employed in gathering the last clusters of the ripe elderberries, which, having picked, they either make into wine, or carry to the neighbouring market town, where they dispose of the fruit at eightpence or tenpence per gallon. A few groups of men, women, and children, may yet be seen in the fields, blowing their fingers for very cold, during the first frosty mornings of October, while they gather the heavy potatoes, pile them in their baskets, and carry them off to the lumbering cart to be stored up against the coming Winter. The ploughman and the sower are now in the fields, making ready and casting in the seed, which shoots up so early in the following year, and is the first to give that green and velvet-like look to the opening landscape of Spring. As the flowers die away, the evergreens seem to come out with a Summer-like freshness; the holly and ivy have a greener and glossier look; the alder still retains its vernal hue, and the hedges are hung with the crimson hips of the wild rose, the dark red berries of the hawthorn, and the gushing scarlet and emerald branches of the nightshade; while below, the arums have risen up, stiff and perpendicular, like stems carved out of the richest coral.

Fieldfares, and redwings, and snipes now visit us, and we already see the woodcock, with his long bill, and his black and grey plumage, hurrying across the open glade, to conceal himself amongst the trees, for he has returned from his long sea voyage, and contrived to land, somehow, unseen by any one, during the night. Now the whole landscape is occasionally buried beneath a mist, the progress of which can be traced as it first slowly arises from the river, spreads over the low meadows beside its banks, hurrying in its folds hedge, and stile, and tree; and looking as if the clouds had dropped down, settled upon, and shut out the scenery. The meadow paths are now wet and damp; there is a clammy moisture about the fallen leaves—a slipperiness on the footways which the trees overhang—a reeking of vapours that ascend in the air—all telling that the work of decay is slowly progressing, and that Nature is busy preparing a bed for the far-distant flowers of Spring. But, amid all this silent desolation, at no season of the year have the objects whose shadows fall upon the water so beautiful an appearance as now, when the sky is clear. Masses of foliage no longer darken the deep mirror, but far down falls the sharp outline of the trees, and in depths which look unfathomable, we see the clear blue of heaven, and the white silver of the moving cloud beautifully reflected. Sometimes we see imaged, as they sail slowly across, long lines of water-fowl, which are ever shifting their ranks into arrow-headed shapes and broken triangles, as the vaulted sky rings back the harsh scream which they now and then utter, while they,

Ranged in figure wedge their way,  
Intelligent of seasons, and set forth,  
Their airy caravan, high over seas  
Flying, and over lands with mutual wing,  
Easing their flight. The air  
Floats as they pass, fanned with unnumber'd plumes.

Squirrel-hunting is an exciting amusement amongst boys in the country during Autumn; for when the leaves have fallen from the trees, this beautiful and graceful little animal can then be seen leaping merrily from branch to branch, or sitting contentedly on some moss-covered bough, holding the ripe brown nuts in his fore paws, and quite enjoying his woodland repast. What shouting, and hallooing, and tearing of clothes, and losing of shoes, and getting entangled in the briars, is there amongst the boys while hunting him: and no sooner has some little fellow, after much labour, climbed up the tree on which the squirrel is perched, when, just as the adventurer is about to extend his hand, and, as he thinks, seize the prize by the hushy tail, at once leap, and without any apparent effort, away bounds the squirrel to the next tree, which is probably so strong that all the united efforts of the hunters cannot for a moment shake it. It is only while leaping from branch to branch, when the squirrel sometimes misses his footing, and falls upon the ground, that there is any chance of capturing him. Then it is that a dozen hats come off like one, every boy eager to catch, or cover up the little animal; and many a hat-crown gets crushed amid the scramble in their eager endeavours to seize him. Scarcely any bird forms a more beautiful nest than the squirrel. The moss and leaves, and the fibres of trees, are all neatly interwoven together, and generally placed so artfully at the fork of some branch, as to look more like a knot of the tree itself than a nest. There is scarcely any inhabitant of the wild wood that pays more attention to its young than the squirrel; for, although they are brought forth about the middle of June, the parents never leave them until the next Spring. The following exquisite description of Squirrel-hunting is so truthful and life-like, that any one who has seen a parcel of noisy boys busily pursuing the little forester, will, while reading it, have the whole scene again as vividly before the eye, as when they last witnessed it; although it was written above two hundred years ago, by that most truthful of all rural landscape-painters, William Browne, from whose writings we have before made a short extract:—

A nimble squirrel from the wood,  
Ranging the hedges for his filbert food,  
Sits partly on a bough, his brown nuts cracking,  
And from the shell the sweet white kernel taking:  
When with their crooks and hags a host of boys,  
To share with him, come with so great a noise,  
That he is forced to leave a nut in each broke,  
And for his life leap to a neighbouring oak;  
Thence to a beech, thence to a row of ashes;  
While through the quagmires, and red water plasies,  
The boys run, dabbling on through thick and thin;  
One tears his hose, the other breaks his shin;  
This, torn and tattered, bath, with much ado,  
Got through the briars—and that bath lost his shoe;  
That drops his hand, that headlong falls for haste;  
Another creeps behind for being the last:  
With sticks and stones, and many a rounding hollow  
The little fool with no small sport they follow;

Whilst he, from tree to tree, from spray to spray,  
Gets to the wood, and hides him in his dray [spray].

In what pleasant situations do we sometimes find those old-fashioned wayside houses, where the tall sign-post steps far out into the road, as if it had come to meet the traveller, and tell him that there he can find both welcome and refreshment. There is something cheerful in the very creaking of the old weather-beaten sign, which is probably the "Blue Bell," or the "Old Bull's Head," or perchance the "George and Dragon," or it may be the "Black Bear;" for these are among the most ancient emblems of mine host. It is generally a long, low house, with a hay-window, or two, projecting out, along the angle, of which comfortable seats are placed in the inside, so that, on whichever side you look, you have a pretty view up the road or over the fields, which you have not twice to glance at to tell you that you are at last far away in the country. The door-way is generally covered in with a porch, with its pent-house roof; and on each side there is a seat between the pillars, which are painted with green or red-and-white checkers, or sometimes encircled with a rose-tree, woodbine, or jasmine. Facing the hay-window, is a long trough filled with clear water, near to which stand curious baskets, placed on long slender legs, ready to contain a few handfuls of hay or corn, in case the traveller should not choose to have his steed stabled. Either beside this trough, looking up and down the road, or in the centre of the porch, stands the healthy-looking landlord, with his pipe in his mouth, ever ready to give a welcome good-day to his customers. The har, in which his pretty daughter, perhaps, presides, is a perfect pattern of cleanliness and tidiness: everything, down to the very bird-cage, is as clean as hands can make them; and it would fill a catalogue to enumerate all the things which are stowed away in that small space. But it is the great, ample, and sanded kitchen which attracts the eye of the cold and hungry wayfarer. Oh! how different to a smoky, beer-deluged tap-room; for it is here where mine host and his family dine, excepting on rare occasions. The floor, though sanded, is white and dry; the tables have also been scoured with free-stone; and he who has walked ten miles cannot refrain from throwing hungry glances at the juicy hams, and large fitches which are hung around the wall. Then, the cooking utensils, of brass, copper, or black-tin, all wear such a bright and tempting appearance, that you cannot help looking first at them, then at the couple of plump pullets which are pecking about the door, and the ham which has just been cut off, and the sweet-looking greens which you catch a glimpse of through the window in the garden; and, taking off your hat, and rearing up your stick, you have a glass of ale and a crust of bread and cheese, while these good things are in preparation. After this, you saunter about for an hour or two, and the landlord, finding that you are about to dine with him, shows you over his garden, orchard, or stables, points out his choicest trees, tells you the quantity of fruit each has borne; and so you while away a pleasant hour; enjoy a comfortable dinner; and, when refreshed and rested, proceed on your journey again, with a light and happy heart.

Sometimes, in the twilight of evening, you come unware upon a group of gipsies, who are now huddled around the large camp-fire, which throws a warm glow upon their nut-coloured countenances, while their black eyes roll upon you like rounded beads as you pass. On turning the corner of the village, you see the blacksmith's ruddy forge, and the country gossips who assemble nightly around the smithy fire, to talk over the news of the day. You meet with quiet foot-passengers, who exchange a friendly "good night"—or a light cart hurries past you at a brisk pace, filled with a merry party, who are returning either from market or a visit; and you hear their joyous laughter ringing upon the silence, until the clapping of a gate, or the barking of a dog, next arrests your attention. And you wander on, long after "twilight grey"

Has in her sober livery all things clad

until, high above the dim wood-crowned hill, "Hesperus that leads the starry host" appears with dazzling front upon the blue vault of Heaven; her beauty only dimmed when the Moon,

Rising in clouded majesty, at length  
Apparent Queen, unveils her peerless light,  
And o'er the dark her silver mantle throws.

You wander along in wonder, while gazing upon those mysterious worlds which lie mapped out upon the face of Heaven, revolving round and round for evermore—for, whether inhabited or silent, we know not—for He who formed them and hung them in the vast realms of never-ending space, alone knoweth "their end and aim."







M		ANNIVERSARYS, OCCUR- D D RENCES, FESTIVALS, &c.	SUN			MOON.			DURATION OF MOONLIGHT				HIGH WATER		EQUA- TION OF TIME Subtract.	Day of the Year		
D	D		Rises.	Sets.	Declina- tion South	Rises. Morning.	SOUTHS. Afternoon		Sets. Afternoon	Before Sunrise.		Moon's Age.	After Sunset				AT LONDON BRIDGE.	
							O'Clock.	2h. 4h. 6h.		O'Clock.	6h 8h 10h.		Morning.	Afternoon				
1	W	<i>All Saints</i>	6 56	4 31	14 35	11 29	3 57	8 26							4 45	5 0	16 16	306
2	Th	<i>All Souls. Mich.</i>	6 58	4 29	14 54	Afternoon	4 46	9 22							5 20	5 40	16 17	307
3	F	Term begins	7 0	4 27	15 13	0 52	5 35	10 23							6 0	6 20	16 17	308
4	S	<i>K. Wm. III. landed</i>	7 2	4 26	15 31	1 26	6 24	11 29							6 45	7 15	16 16	309
5	S	<i>20TH S. AFT. TRIN.</i>	7 4	4 24	15 49	1 56	7 14	Morning.							7 55	8 35	16 14	310
6	M	[Gunpowder Plot, 1605]	7 6	4 22	16 7	2 26	8 5	0 40							9 15	9 50	16 11	311
7	Tu	Length of the day, 9h. 14m.	7 7	4 21	16 25	2 56	8 57	1 55							10 30	11 5	16 8	312
8	W	[L. Mayor's Day	7 8	4 19	16 43	3 24	9 50	3 11							11 35	No Tide.	16 3	313
9	Th	<i>P. Wales b., 1841.</i>	7 10	4 18	17 0	3 55	10 46	4 28							0 0	0 25	15 58	314
10	F	[Quarter	7 11	4 16	17 17	4 29	11 45	5 51							0 50	1 15	15 52	315
11	S	<i>St. Martin. Half</i>	7 13	4 14	17 33	5 9	Morning.	7 13							1 35	2 0	15 46	316
12	S	<i>21ST S. AFT. TRIN.</i>	7 14	4 13	17 50	5 58	0 45	8 30							2 25	2 45	15 38	317
13	M	Britius [Camb Term div.]	7 16	4 11	18 6	6 54	1 47	9 41							3 10	3 30	15 29	318
14	Tu	Fomalhaut souths 7h. 3m P.M.	7 18	4 10	18 21	7 55	2 48	10 42							3 55	4 20	15 20	319
15	W	<i>Machutus</i>	7 20	4 9	18 37	9 1	3 47	11 34							4 40	5 5	15 10	320
16	Th	Alpha Pegasi souths 7h 13m P.M.	7 22	4 7	18 52	10 10	4 42	Afternoon							5 30	6 0	14 59	321
17	F	<i>Hugh Bp. of Lin.</i>	7 23	4 6	19 6	11 18	5 35	0 47							6 25	6 50	14 47	322
18	S	Alpha Andromede souths 8h 7m P.M.	7 25	4 5	19 21	Morning.	6 23	1 16							7 20	7 55	14 34	323
19	S	<i>22ND S. AFT. TRIN.</i>	7 27	4 4	19 35	0 26	7 10	1 42							8 35	9 10	14 20	324
20	M	<i>Edmund King and</i>	7 29	4 3	19 48	1 32	7 54	2 6							9 50	10 25	14 6	325
21	Tu	<i>P. Royal b., 1840</i> [Martyr]	7 31	4 1	20 2	2 36	8 37	2 33							11 0	11 30	13 51	326
22	W	<i>St. Cecilia</i> [Day	7 32	4 0	20 15	3 39	9 20	2 52							No Tide.	At Noon.	13 34	327
23	Th	<i>Clement. Old Mart.</i>	7 34	3 59	20 27	4 42	10 4	3 18							0 20	0 40	13 18	328
24	F	the Pole Star due North 8h 49m P.M.	7 35	3 58	20 39	5 41	10 48	3 45							1 5	1 20	13 0	329
25	S	<i>Catherine. Mh. T.</i>	7 37	3 57	20 51	6 45	11 33	4 17							1 40	2 0	12 41	330
26	S	<i>23RDS. AFT. TRIN.</i>	7 39	3 56	21 2	7 42	Afternoon	4 52							2 15	2 30	12 22	331
27	M	<i>Prin. Mary Adel.</i>	7 40	3 55	21 13	8 37	1 6	5 34							2 45	3 5	12 2	332
28	Tu	born, 1833. Cousin to her Majesty	7 41	3 54	21 24	9 29	1 55	6 22							3 20	3 35	11 42	333
29	W	Length of the night, 15h 50m.	7 43	3 53	21 34	10 14	2 43	7 14							3 50	4 10	11 20	334
30	Th	<i>St. Andrew</i>	7 44	3 53	21 44	10 54	3 32	8 14							4 35	4 40	10 58	335



## NOVEMBER.

**THE SUN** is in the sign Scorpio till the 22nd, on which day he enters the sign Sagittarius (the Archer)

On the 1st he is 94,210,000 miles from the Earth. He rises on the 1st, at the E.S.E., and sets at the S.W.; on the 26th, he rises at the S.E. by E., and sets at the S.W. by W. points of the horizon.

He souths on the 1st, at 16m. 16s.; on the 15th, at 15m. 10s., and on the 30th, at 10m. 58s. before noon (common clock time), at an altitude of 24° on the 1st, decreasing to 17° on the last day.

The Moon rises between noon and midnight from the 2nd to the 19th; and between midnight and 11h. P.M. from the 20th to the 30th. She sets between 3h. P.M. and midnight till the 4th; between midnight and noon from the 6th to the 15th; and between noon and 8½h. P.M. from the 17th to the end of the month.

She is near to both the constellations of Aquila and Sagittarius, on the 1st and 2nd; in Capricornus, on the 3rd; in Aquarius, on the 4th, 5th, and 6th; alternately in Pisces and Cetus, from the 7th to the 10th; in Taurus, on the 11th, 12th, and 13th; in Gemini, on the 14th and 15th; in Leo, on the 16th, 17th, and 18th; in Virgo, from part of 19th to the 23rd; in Libra, on the 24th and 25th; in Ophiuchus, on the 26th and 27th; near to Sagittarius and Aquila, on the 28th and 29th; and in Capricornus, on the 30th.

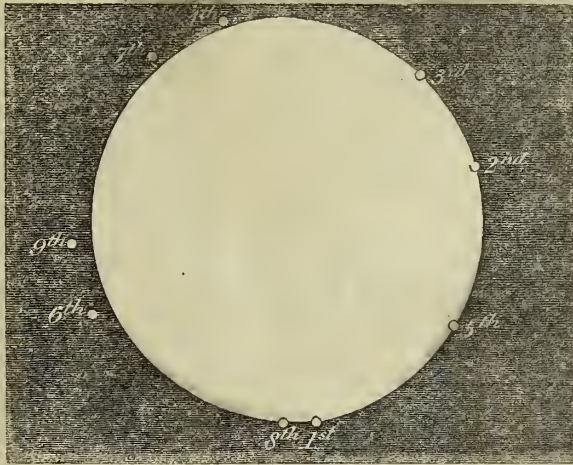
On the 1st she is situated 18° south of the Equator, and is 20 degrees above the horizon when she souths; is on the Equator on the 7th; attains her greatest altitude on the 13th, being 56 deg. high when she souths; is on the Equator on the 20th, and at her extreme low point on the 28th, being 19 degrees above the horizon when she souths.

She is full on the 11th, and new on the 25th, but without an Eclipse at both times.

She is near Saturn on the 7th; Uranus, on the 9th; Jupiter, on the 17th; Mercury, on the 23rd; Mars, on the 24th; and Venus, on the 28th.

She is near the same place in the Heavens on the 12th day in the morning, as she was on August 22nd, and she occults the same stars as she did on that day. The Moon at this time will not long have passed her full; the disappearances, therefore, will take place at the full bright limb, and the reappearances will be a very little way from the bright part, at the places as shown in the following diagram.

OCCULTATION OF STARS, NOVEMBER 12, 1848.



	D. H. M.	and re-appear	D. H. M.
75 Tauri will disappear at the place marked	12 4 55 A.M.	at the place marked	6 at 12 5 41 A.M.
Theta 1 Tauri	2 at 12 5 3	"	4 at 12 5 35
Theta 2 Tauri	3 at 12 5 22	"	"
A. S. C. 516	5 at 12 5 41	"	7 at 12 6 37
Aldebaran	8 at 12 7 55	"	9 at 12 8 28

It is doubtful whether Theta 2 will merely touch the Moon, or whether it will

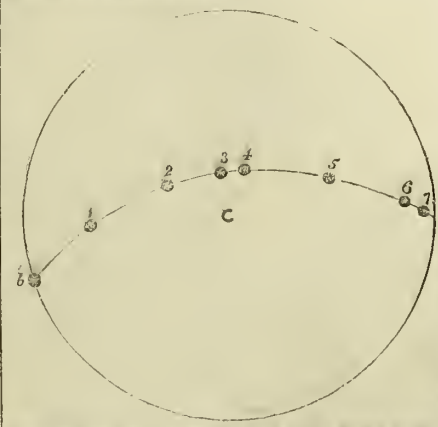
prove to be an occultation; if the latter, the star would only be obscured a minute or two, and reappear at nearly the same place as it disappeared.

At the time of the reappearance of Aldebaran, the star will be setting at London.

**MERCURY** is in the constellation of Libra throughout the month.

He sets on the 1st, at 4h. 53m., being 22 minutes after the Sun has set; on the 5th, at 4h. 35m., being 11 minutes after Sunset; on the 9th day a transit of Mercury will take place; or in other words the Planet will appear to cross the Sun's disc. This phenomena will be easily seen with telescopes of very ordinary power, using a piece of coloured or smoked glass, to protect the eye from the intensity of the Sun's rays. The following diagram is adapted to the latitude of London, as seen through a telescope that does not invert.

TRANSIT OF MERCURY ACROSS THE SUN, NOV. 9TH, 1848



The Planet will first touch the Sun's limb at a point 112° from his highest point reckoned round by the east or by the left hand, at 11h. 2m. A.M. at the point marked (b.) At noon he will have passed to the point marked 1; at 1 o'clock P.M., he will be at the point marked 2; and at 1h. 44m., he will be at the middle of the transit, appearing at the place marked 3, being a little above the centre of the Sun C; at 2 o'clock P.M., his place is shown at 4; during the next hour he will pass through the space between 4 and 5; and at 4h. P.M., he will have passed to the point 6; and at the time of the Sun setting the Planet will be near the edge of the Sun as marked at 7.

On the 8th he will rise at 7h. 27m.; on the 15th, at 6h. 5m.; on the 26th, at 5h. 33m.; and on the last day, at 5h. 47m.; these times are 0h. 19m., 1h. 15m., 2h. 1m., and 1h. 57m. before the Sun rises, respectively. He will be visible in the morning, before the Sun rises, and very favourably so from the 23rd day. He rises near the E.S.E. point of the horizon. He is in superior conjunction with the Sun on the 9th, and is at his greatest W. elongation on the 26th.

He is moving westward among the stars at the beginning; is stationary among them at the middle, and is moving eastward among them at the end of the month. (See the engraving showing the path of Mercury in last month.)

**VENUS** will be skirting the boundaries of Scorpio and Ophiuchus till the 12th; and in that of Sagittarius from the 13th to the end of the month.

She is an evening star; and sets midway between the S.W. by W., and the S.W. points of the horizon; on the 1st, at 5h. 33m. P.M.; on the 15th, at 5h. 35m. P.M.; and on the 30th, at 5h. 56m. P.M. She souths on the 1st, at 1h. 31m. P.M.; on the 15th, at 1h. 49m. P.M.; and at 2h. 13m. P.M. on the last day, at the altitude of 16° on the 1st, decreasing to 14° on the 30th. At the end of this month she attains her greatest south declination (See below); and, consequently, attains her lowest Meridian altitude during the year.

She is near the Moon on the 28th.

**MARS** will be in the constellation of Virgo, on the 1st and 2nd; and in that of Libra, from the 3rd to the 30th.

He is a morning star, and rises near the E.S.E. till towards the middle; at the E.S.E. about the middle; and near the S.E. by E. at the end of the month; at 4h. 23m. A.M., on the 1st; at 3h. 46m. A.M., on the 15th; and at 3h. 13m. A.M. at the end of the month.

He souths on the 1st, at 1h. 25m. A.M.; and on the last day at 10h. 50m. A.M. He is near the Moon on the 24th.

**JUPITER** will be in the constellation of Leo throughout the month.

He is principally a morning star, and rises on the 1st at 1h. 20m. P.M.; on the 15th, at 10h. 36m. P.M.; and on the 30th, at 9h. 38m. P.M.; sets about 1h. A.M. in the middle of the month. He souths on the 1st, at 6h. 49m. A.M.; on the 15th, at 6h. A.M.; and on the 30th, at 5h. 3m. A.M., at the altitude of 53° above the S. horizon. His motion among the stars is very slowly eastward.

He is near the Moon on the 17th.

## JUPITER'S SATELLITES.

Days of the Month	Length of Day, or number of hours between Sunrise and Sunset.	Number of hours and minutes the day has increased since the Shortest Day.	Time of Day-break, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.						OCCULTATIONS OF STARS BY THE MOON.								
					Eclipses of						Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.					
					1st Sat.			2d. Sat.											
					Immersion.			Immersion											
	H. M.	H. M.	H. M.	H. M.	D.	H.	M.	A. M.	D.	H.	M.	A. M.		D.	H.	M.	P. M.		
1	9 35	6 57	5 0	6 27	1	0	35	A. M.	6	0	12	A. M.	Xi I Ceti	5	9	11	20	P. M.	Dark Bright
6	9 16	7 16	5 7	6 18	8	2	29	"	13	2	47	"							
11	9 1	7 31	5 14	6 14	15	4	22	"	20	5	22	"							
16	8 45	7 47	5 22	6 8	3rd Sat.								111 Tauri	6	13	1	3	A. M.	Bright Dark Bright Dark
21	8 30	8 2	5 29	6 4	22	6	15	"											
26	8 19	8 13	5 36	6 0	24	0	43	"	7	4	32	A. M.							
31	8 9	8 23	5 41	5 57									Xi I Leonis	5	17	8	26	"	Dark

## OCCULTATIONS OF STARS BY THE MOON.

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
MERCURY.			VENUS.			MARS.			JUPITER.		
Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.
15h. 30m.	21° 21'	16h. 15m.	22° 4'	14h. 8m.	12° 36'	9h. 32m.	15° 10'	23h. 23m.	6° 33'	1h. 13m.	7° 3'
15 14	19 3	16 41	23 14	14 21	13 46	9 34	15 10	23 22	6 36	1 12	6 59
14 50	15 38	17 8	24 8	14 21	14 54	9 34	15 10	23 22	6 38	1 12	6 55
14 35	13 57	17 35	24 44	14 35	16 0	9 33	14 56	23 22	6 39	1 11	6 52
14 36	12 40	18 2	25 1	15 2	17 2	9 33	14 52	23 21	6 38	1 11	6 48
14 51	13 54	18 29	25 0	15 16	18 2	9 40	14 48	23 21	6 37	1 10	6 46

**TIMES OF CHANGES OF THE MOON,** and when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

First Quarter	..	4d. 6h. 3m.	P.M.
Full Moon	..	11 1 35	A.M.
Last Quarter	..	17 6 47	P.M.
New Moon	..	25 9 30	P.M.
Perigee	..	11 6	A.M.
Apogee	..	24 11	P.M.



# COUNTRY SCENES.—NOVEMBER.



In the stormy east-wind straining,  
The pale yellow woods are waning,  
The broad stream in its banks complaining,  
Heavily the low sky raining.      TENNYSON.

WINDY, rainy, dark November, which seems as if sent purposely to make us more in love with home. What a roaring there is now in the woods—what a rattling of branches and clashing together of great grey iron boughs, that groan again in their mighty agony, as the storm tries in vain to tear them from their gnarled and knotty stems. The streams foam and dash and hurry on in their headlong course, as if they had now no cause to linger—no flowers to mirror back—no green shady sprays to cover them, but were eager to reach their journey's end, and empty themselves into river or sea, to escape from the blinding rain that is ever coming down heavily. The gardens have a desolate and dreary look; and if a flower still linger behind, it looks like a mourner bending over a grave, and envying the dead that lie below: it seems lost in the world without its companions, and you are glad when it is gone.

November is the pioneer of Winter: he marches foremost, and gathers all the decayed leaves into dark hollows and dreary places, where they lie to be blown and snowed upon, until the work of decay and death is completed. The song-birds

that gladdened our woods and hills are now far away over the sea: the twitter of the swallows no longer falls upon the ear between the showers, as it did in Spring; nor is there even the murmuring of a bee to vary the monotonous moaning of the wind, and the dull dead plashing of the rain. The cattle stand disconsolate beside the leafless hedges, looking wistfully towards the well-stored farm-yard, as if wondering why they are kept so long from the snug, warm, and well-filled stall. The woodman drags his way wearily towards the forest, trying in vain to whistle the cheerful tunes which seemed to shorten his journey in Spring, and glad when the short day has drawn to a close. There is a ragged and vagrant look about the clouds, and they seem to wander homeless about the sky, as if they had no resting-place, but were driven hither and thither at the will of that harsh Over-seer the wind. Such are the objects we pick out amid the gloomy shadows of November; but there are spots in the picture which are not wholly dark, and these we will now turn to—scenes which lay on the outskirts of "the forest world of shade"—



The gleamy vales,  
And sunny lawns, and streams in hazy light,  
Glittering, when that peculiar stillness reigns  
As Nature kept a Sabbath; when the leaf  
Sbed from the aerial spray, scarce quivering drops  
Through the lulled atmosphere.

The Autumn has torn down the green curtains of Summer. She has revealed little morsels of beautiful landscape which had long been shut out, patches of green fields, and stretches of winding roads, the white-washed front of a distant cottage, or the grey spire of some remote village church, which all Summer long had been hidden behind the trees. Between the openings of the naked boughs we see where the vales dip down, and the hills rise up. We see many beauties in the form of the surrounding landscape which have long been concealed. We observe the forms of the evergreens which had been dwarfed by their taller brethren of the grove; we see numberless nests in the hedges and bushes which we have frequently looked into during the Summer, without being able to discover anything more than the dark masses of leaves. We observe a beauty in the grouping and falling of the berries and wild fruits which hang upon the branches, and marvel that their elegant forms have never before arrested the glance; and, above all, the eye is attracted by the number of strange birds which are continually coming over to winter with us. We discover that a flock of sheep in a green turnip-field, with the distant hayrick, the thatched shed, the picturesque fence, and the pond of water which the naked trees overhang, would, if well painted, form a pretty foreground in a picture of Autumn. The few hard winter apples that are still left upon the trees, though only a few weeks ago they seemed to set the teeth on edge by looking at them, have now a rather tempting look; and we perceive that the dark purple berries of the ivy are in keeping with the sombre green of the closely-matted leaves, and the beautiful colours of the fungi that still remain now attract our attention. We see many a rich tint in the falling acorns, and trace in the surrounding mosses forms and colours as beautiful and delicate as may be found in the choicest flowers; and sometimes, when the weather is mild, we discover flowers that are again blowing, although they have none of the fragrance of Spring. And in such spots—

The bramble hends  
Beneath its jetty load; the hazel hangs  
With auburn bunches, dipping in the stream  
That sweeps along, and threatens to o'erflow  
The leaf-strewn banks,

from which the piping winds are ever sweeping thousands of the "pale and hectic leaves" into the torrent. Naked and leafless as the woods now nearly are, there is something grand about the great November wind, uplifting its mighty voice, and pealing like an organ through these ancient cathedrals of Nature—these huge temples which God's own hand erected. Who can walk beneath those wide-spread avenues—that vaulted and trellised roof—those gigantic pillars, which the hand of man reared not—the silent workmanship of thousands of Summer nights, without feeling that they are in the presence of Him by whom all things were created? Who can look upon the mountains and hills, the workmanship of His hands, then glance at the little piles which the buldier Man erected, without acknowledging how feeble is the human arm compared to the Power that erected those stupendous monuments? Nature is ever beautiful. Even now the reeds are rocked, and wave their plummy heads beside the forest brook, and we see a grace in their form and motion, which was lost when the leaves of Summer threw their shadows over the scene. The tall bulrush, that feathered cleftain of lake and mere, now dances his sable plume upon the wind, and proudly overlooks the vassal-like reeds which rustle about his feet. The fallen leaf sails upon the current, like a fairy bark sporting with every whirling eddy it meets with by the way—then, darting along again with eager speed, as if to make up for the time it had lost. What a babbling the brook here makes, seeming to hold parley with the pebbles which have checked its course, then muttering to itself as it rolls along to where the stem of the mighty tree, which the wind hath torn up by the roots, lies prostrate, and thwart its channel, and there it chafes and churns, and vents its wrath in maddening foam, and endeavours in vain to overleap the bulky barrier. What a desolate air hangs around the ruins of that old wooden bridge, which years ago has been impassable; what piles of moss and weeds have gathered around the dark and slimy planks, some of which rock and sway beneath the force of the torrent, and, though shorn of their strength, still defy its power; for—

The piles that they stand on are green with decay,  
And half buried with weeds that to and fro sway  
In the eddy and foam, both by night and by day.

Sometimes the landscape is enlivened during this month by the loud whoop and hollow of the fox-hunters; and we see streaming along the hill-side the mounted horsemen in their scarlet coats, while the mottled hounds show like a patch of dusky white upon the sloping shoulder of the uplands. Away they sweep over hedge and fence in their headlong career—they pass the mill—they leap and swim the brook; they are shut out for a moment by the large farm which rises up on the edge of the valley; then away they burst again in the direction of the little hamlet which they can just distinguish by the tapering spire that "points its tapering finger to the sky." But see, they are at fault! Reynard has doubled somewhere beside yonder little coppice, and for a time bidden defiance to all his pursuers. That cold eastern wind is unfavourable to the scent.

In our eye, the fox is a beautifully formed animal; and we have never seen his red skin and bushy tail sweeping through the brown fern, or gliding stealthily along the edge of the forest, without a feeling of delight; for he is, beyond doubt, one of the oldest inhabitants of our ancient British woods. He went prowling about the roots of our primeval oaks, with his broad head and sharpened snout, ages before a Roman galley ever grazed the pebbles upon our beach; for we find his fossil remains amongst those of extinct animals, which, doubtless, lived in England long before the early Cymry sailed through the misty ocean, and named our coast "the country of sea-cliffs." Even then he burrowed in the ground during the day, and ranged abroad in the night, prowling about the forest-homes of the first ancient settlers, who erected their huts in the wild solitude of our gloomy old woods, and who, for aught we know, piled up the giant relics of Stonehenge. He is associated, in our mind, with many undated changes, and has a great claim on our respect for his antiquity alone. True, the fox is a thief; but it must live somehow; and who can tell what lesser vermin it may destroy, to make up for the few dozens of poultry which it occasionally carries off? That the fox is an affectionate mother we have proof, as she has been seen to carry off one of her cubs in her mouth, even when the hounds have been in pursuit of her: she has thus boldly endangered her life to save her young. Such a trait as this surely makes up for a thousand petty delinquencies. She is very partial to rabbits, and woe be to the warren on the ledge of which she is located. When the fox sleeps, he coils himself round like a dog; he has a great objection to light, and few animals can see better in the twilight or dark than he can. The fox has before now been known to run twenty-five miles without a check, and in several instances which are on record has kept the lead of the

hounds for an hour and a half. We have once or twice in our lives, while a-journing at a lonely road-side inn, come in contact with that picturesque and nocturnal character—an Earth-stopper; who, with his little pony, terriers, lantern, spade, and mattocks, has just pulled up to drink his pint, before he sets out on his nightly round. Poor old fellow! on the night which precedes a hunt, he is compelled either to turn out of his warm bed, or leave his comfortable fireside, and, while the fox is out feeding, to stop up the entrance of his burrow or hole; so that when Reynard returns, he sees the door of his house closed, and is compelled to find a shelter where he can. Sometimes the old Earth-stopper has to make a circle of miles, and it is only in the middle of the night that his work can be done, for were he to stop the earths either early in the evening or in the morning, he would be likely enough to fasten up the fox in his burrow, instead of keeping him out, that he may be in readiness when the hunters meet. It is the Earth-stopper's business to become acquainted with every hole which the fox hides in; and while he is out feeding, to stop these places up with thorns, furze-bushes, earth, or stones; so that during the hunt on the following day the fox may not be able to run under the earth, and baffle the hounds; and many a wintry night is the old man out alone, following this cheerless occupation. I am no advocate of fox-hunting; I like to see its black feet pattering through the fallen leaves, for I have always thought it unfair that there should be so many men, horses, and hounds, to one poor fox. It is so unlike that old English system of fair play, which allows only of one enemy at a time.

Frequently during Autumn the heavy rains which descend flood the low countries beside rivers for miles around, sometimes breaking through the embankments before any one is prepared for such a disaster, and rushing into the fields where the cattle are still left to pick up what they can. A strange appearance does a country present thus laid suddenly under water. You see cottages and hayricks half buried; hedges, whose outlines you can only trace by the topmost twigs which rise above the surface; and far out to the foot of the opposite hills, what was but a few days ago a green open landscape, is now, with the exception of a few half-buried objects, one wide watery scene. Footpaths and gates are no longer visible; you can only tell where the broad brown level highway went winding along, by the marks of some particular tree that grew here and there beside it—and where the hay and straw and broken boughs have drifted and lodged against the trees, or the uncovered tops of the higher hedges; there water-rats and water-shrews, and mice of all descriptions, and weazels and ferrets, friends and foes, all huddled together, may be found sheltering, and at peace, amid the terrors created by such a wide spreading deluge. Here the naturalist may meet with objects which he has hunted for in vain for years, for all that burrows underground, conceals itself amid the reed-covered banks, or hides under the thick entangling hedgerows, is now compelled to brave the unwelcome light of day, for everything excepting man possesses the power of swimming for a considerable time; he alone finds it difficult to "keep his head above water."

This is the end of Autumn, and so few materials does the month present that I must draw upon one of my former works for the conclusion. "We now hear the busy flail in the barn, as the thrasher pursues his monotonous task from day to day, never lacking company, for he is surrounded by the whole family of fowls, who are ever ready to hunt up a neglected ear that has escaped from his hearty blows. In the farmyard, we see the cattle standing knee-deep in the broken straw which the thrasher has turned out, and looking wistfully over the fence, as if they wondered what Summer had done with all its green, and seeming to say, as plainly as they can speak, that they like not the dry provender which is given to them, and care not how soon they are again ankle-deep in the rich luxuriant grass. We have now rainy days and foggy nights, that come so sudden and thick over the landscape we can scarcely see 'our way before us.' Travellers take the wrong road; and farmers, who have staid a little too late at the market-town tavern, get into no end of queer bridle-paths, and all at once find themselves anywhere excepting 'at home.' Lamps in the streets bewilder one terribly, and it would be difficult to tell of our 'whereabout,' where it not for the old men, who cough one against the other as they pass, and give us warning that we are near the lane or turning which they are about to enter. The fogs now close around one like a great coat that has been steeped in the river, seeming to fit all the better because no one can see it, but wrapping us all over in its uncomfortable cold—and we for the twentieth time discover that our own humble hearths are more comfortable than the crowded and fashionable rooms we have just quitted."







M D	W D	ANNIVERSARIES, OCCU- RENCES, FESTIVALS, &c.	SUN.			MOON.			DURATION OF MOONLIGHT.				HIGH WATER		EQUA- TION OF TIME. Subtract.	Day of the Year.
			Rises.	Sets.	DECLINA- TION SOUTH.	Rises.	SOUTH. Afternoon	Sets.	Before Sunrise.	O'Clock.	After Sunset.	O'Clock.	At London Bridge	At London Bridge		
			H. M.	H. M.	Deg. Min.	H. M.	H. M.	H. M.	2h. 4h. 6h.	Moon's Age	6h. 8h. 10h.	Morning.	Afternoon			
1	F	Our Church ser-	7 45	3 52	21 53	11 29	4 20	9 18					5 0	5 20	10 36	336
2	S	vice begins from the festi- val of St. Andrew, Advent	7 47	3 52	22 2	Afternoon	5 8	10 26					5 40	6 0	10 12	337
3	S	Sunday being always the	7 48	3 51	22 11	0 29	5 57	11 35					6 30	6 50	9 49	338
4	M	By this means we are kept in memory of St. Andrew	7 50	3 50	22 19	0 56	6 46	Morning.					7 20	7 50	9 24	339
5	Tu	having been the first fol- lower of our Lord, and the	7 52	3 50	22 27	1 23	7 37	0 46					8 30	9 5	8 59	340
6	W	first called to be an Apostle	7 53	3 50	22 34	1 53	8 30	2 3					9 40	10 20	8 34	341
7	Th	Alpha Andromedæ souths 6h 53m P.M.	7 54	3 50	22 41	2 23	9 25	3 20					10 55	11 25	8 18	342
8	F	Con. of B. V. Mary	7 55	3 50	22 47	3 0	10 23	4 40					11 55	No Tide.	7 41	343
9	S	Alpha Arctis souths 5h 44m P.M.	7 56	3 49	22 53	3 42	11 24	5 59					0 25	0 50	7 15	344
10	S	2D S. IN ADVENT	7 57	3 49	22 58	4 32	Morning.	7 13					1 15	1 40	6 47	345
11	M	The Pole Star due north 7h 42m P.M.	7 58	3 49	23 3	5 32	0 27	8 25					2 5	2 30	6 20	346
12	Tu	Length of day 7h 50m	7 59	3 49	23 8	6 39	1 28	9 20					2 55	3 20	5 52	347
13	W	Lucy	8 0	3 50	23 12	7 49	2 28	10 10					3 45	4 7	5 23	348
14	Th	Length of night 16h 11m	8 1	3 50	23 15	9 0	3 24	10 48					4 30	4 55	4 55	349
15	F	Aldebaran souths 10h 43m P.M.	8 2	3 50	23 18	10 11	4 16	11 20					5 15	5 40	4 26	350
16	S	Sapientia. Camb.	8 2	3 50	23 21	11 18	5 5	11 48					6 5	6 30	3 56	351
17	S	3D S. IN ADVENT	8 3	3 51	23 23	Morning.	5 51	Afternoon					6 55	7 20	3 27	352
18	M	Oxford Term ends	8 4	3 51	23 25	0 26	6 35	0 34					7 50	8 20	2 57	353
19	Tu	Capella souths 11h 10m P.M.	8 5	3 51	23 26	1 30	7 19	0 59					8 55	9 25	2 27	354
20	W	Ember Week	8 5	3 51	23 27	2 33	8 2	1 23					10 0	10 35	1 57	355
21	Th	St. Thomas. The	8 6	3 52	23 27	3 35	8 45	1 48					11 10	11 40	1 27	356
22	F	Shortest Day Winter commences	8 6	3 52	23 27	4 36	9 30	2 18				No Tide.	0 5	0 57	0 57	357
23	S		8 7	3 53	23 27	5 36	10 16	2 52					0 30	0 50	0 27	358
24	S	4TH S. IN ADVENT	8 7	3 53	23 25	6 32	11 3	3 32					1 10	1 30	Add.	359
25	M	CHRISTMAS DAY	8 7	3 54	23 24	7 25	11 51	4 17					1 50	2 10	0 33	360
26	Tu	St. Stephen	8 7	3 55	23 22	8 13	Afternoon.	5 9					2 30	2 45	1 3	361
27	W	St. John	8 8	3 56	23 19	8 55	1 29	6 6					3 5	3 20	1 33	362
28	Th	Innocents	8 8	3 57	23 16	9 33	2 18	7 8					3 40	3 55	2 2	363
29	F	Thomas à Becket	8 8	3 58	23 13	10 6	3 7	8 16					4 10	4 30	2 31	364
30	S	10th 1171. [Silvester	8 8	3 58	23 9	10 35	3 55	9 24					4 50	5 5	3 1	365
31	S	1ST S. AFT. CHRIST.	8 8	3 59	23 5	11 2	4 43	10 35					5 30	5 50	3 29	366



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## DECEMBER.

THE SUN is in the sign Sagittarius till the 21st, on which day he enters the sign Capricornus, at 3h. 59m. P.M., and Winter commences.

On the 1st he is 93,630,000 miles, and on the 31st, he is 93,410,000 miles from the Earth. He rises on the 1st, near the S.E. by E., and sets near the S.W. by W.; on the 21st, he is at his greatest south declination, and rises and sets 4° S. of the above points of the horizon.

He souths on the 1st, at 10m. 36s.; on the 15th, at 4m. 26s.; and on the 23rd, at 27 seconds before noon; on the 24th, at 3s. afternoon; and on the last day, at 3m. 29s. afternoon (common clock time); at an altitude of 16½°, on the 1st; decreasing to 12° on the 21st; and afterwards increasing to 15½° on the last day.

The MOON rises between noon and midnight from the 2nd to the 16th; and between midnight and 11h. P.M. after the 17th; she sets before midnight till the 3rd; between midnight and noon, from the 4th to the 17th; and between noon and 11h. P.M. after the 17th.

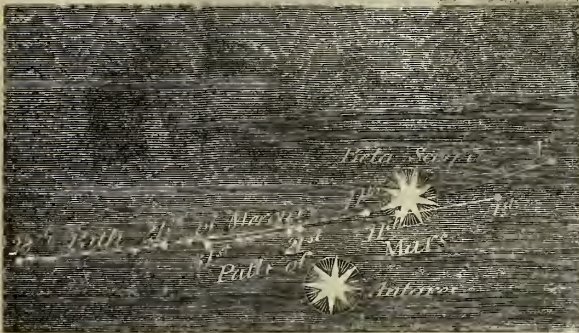
She is in the constellation of Aquarius, on the 1st, 2nd, and 3rd; in Pisces and Cetus, alternately, from the 4th to the 7th; in Taurus, on the 8th, 9th and 10th; in Gemini, on the 11th and 12th; in Leo, from the 13th to the 16th; in Virgo, from the 17th to the 20th; in Libra, on the 21st and 22nd; in Ophiuchus, on the 23rd and 24th; near to both Sagittarius and Aquila, on the 25th and 26th; in Capricornus, on the 27th; in Aquarius, on the 28th, 29th, and 30th; and in Pisces, on the 31st.

She is near Saturn, on the 4th; Uranus, on the 6th; Jupiter, on the 14th; Mars, on the 23rd; Mercury, on the 24th; Venus, on the 29th; and Saturn, on the 31st.

MERCURY is in the constellation of Libra till the 8th; in that of Scorpio on the 9th, and skirting those of Scorpio and Ophiuchus from that time to the end of the year.

He rises near the E.S.E. point of the horizon throughout the month; on the 1st, at 5h. 52m.; on the 15th, at 6h. 53m.; and on the last day, at 8h. 0m.; these times are 1h. 53m., 1h. 9m., and 0h. 8m. before Sunrise; and, therefore, during the first half of this month, the Planet is favourably situated for observation. He is moving eastward among the stars, and on the 9th and 10th he is very near Beta Scorp., and on the 17th, he is a few degrees distant from Antares. From the beginning of the month till the 20th, he is near Mars, more particularly on the 7th day. The paths of these Planets are shown, for this month, in the annexed engraving.

PATHS OF MERCURY AND MARS IN DECEMBER, 1848.



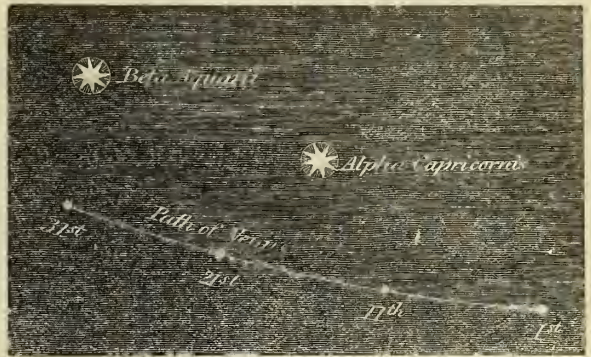
Scale, 15 degrees to one inch.

VENUS will be in the constellation of Sagittarius till the 13th, and in that of Capricornus from the 14th to the end of the month.

She is an evening star, and sets at 5h. 58m. P.M., on the 1st; at 6h. 34m. P.M., on the 15th; and at 7h. 24m., on the 31st, near the S.W. at the beginning, and near the W.S.W. at the end of the month. She souths at 2h. 15m. P.M., on the 1st; at 2h. 33m. P.M., on the 15th; and at 2h. 49m. P.M., on the last day. Her meridian altitude on the 1st day is 14°, which increase to 16° on the last day. She is near the Moon on the 29th.

Her motion among the stars is eastward throughout the month, and her relative position with respect to them is shown in the following engraving:—

PATH OF VENUS IN THE MONTH OF DECEMBER 1848.



Scale, 15 degrees to one inch.

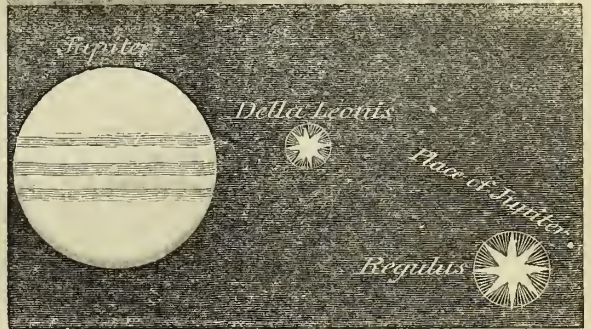
MARS will be in the constellation of Libra till the 6th; in that of Scorpio, from the 6th to the 14th; and will be moving at the boundaries of Scorpio and Ophiuchus from the 15th to the end of the year.

He is a morning star, and rises near S.E. by E. on the 1st, at 3h. 10m. A.M.; on the 15th, at 2h. 35m. A.M.; and on the 31st, at 2h. 16m. A.M. He souths on the 1st day, at 10h. 48m. A.M.; and on the last day at 10h. 20m. A.M. He is near the Moon on the 23rd; on the 7th and 8th he is near Mercury; on the 9th, 10th, and 11th, he is near Beta Scorp., and about the middle of the month he passes a few degrees above Antares. His path with relation to that of Mercury, and to these stars, are shown in the preceding engraving.

JUPITER will be in the constellation Leo throughout the month.

He is visible through the greater part of the night. He rises on the 1st, at 9h. 35m. P.M.; on the 15th, at 8h. 40m. P.M.; and on the 31st, at 7h. 32m. P.M.; and he sets at about 9h. A.M., at about the middle of the month. He souths at the altitude of 53° on every day; on the 1st, at 4h. 59m. A.M.; on the 15th, at 4h. 0m. A.M.; and on the 31st, at 2h. 59m. A.M. He is stationary among the stars at the beginning of the month, and moves slowly westward at the end of the month; but to the naked eye he occupies the same relative position to the stars throughout the month, and he is situated a few degrees east of Regulus. His path and telescopic appearance are shown in the following diagram. The Moon is near him on the 14th.

APPEARANCE OF JUPITER, AND HIS POSITION RELATIVE TO NEIGHBOURING STARS IN THE MONTH OF DECEMBER.



Days of the Month.	Length of Day, or number of hours between sunrise and sunset.		Number of Hours and Minutes the day has decreased since Longest Day.		Time of Day break, or beginning of Twilight.	Time of Twilight ending.	JUPITER'S SATELLITES.										OCCULTATIONS OF STARS BY THE MOON.				
							Eclipses of										Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.	
							1st. Sat.					2nd. Sat.									
							Immersion. I.					Emersion. E.									
							D.	H.	M.	I.	E.	D.	H.	M.	I.	E.					
1	8	7	8 25	5 41 A.M.	5 56 P.M.	1	2	36 A.M.	I	7	11	51 P. M.	I	n Piscium	5½	4 5 36 P. M.	Dark				
5	7	58	8 34	5 46 "	5 56 "	8	4	29 "	I	15	2	26 A. M.	I	85 Ceti	6	4 6 50 "	Bright				
9	7	53	8 39	5 51 "	5 56 "	15	6	22 "	I	22	5	2 "	I			7 10 9 "	Dark				
13	7	50	8 42	5 55 "	5 56 "	17	0	51 "	I					N Tauri	6	7 10 51 "	Bright				
17	7	48	8 44	5 57 "	5 57 "	24	2	44 "	I							10 8 21 "	Bright				
21	7	46	8 46	6 0 "	5 58 "	25	9	12 P. M.	I							10 9 20 "	Dark				
						31	4	37 A. M.	I					Omicron i Sextantis	6	16 0 35 A. M.	Bright				
											5	11	57 P. M.	E							
25	7	47	0 1	6 2 "	5 59 "						13	0	22 A. M.	I							
29	7	50	0 4	6 2 "	6 3 "						13	3	55 "	E							
31	7	51	0 5	6 3 "	6 5 "						20	4	19 "	I							
											20	7	52 "	E				Dark			
						12	4	6 A. M.	I												
						28	10	5 P. M.	I												
						29	2	50 A. M.	E												

TIMES OF CHANGES OF THE MOON.					RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
					MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
					Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
FIRST QUARTER	..	3D.	8H.	6M. P.M.	1 15h.13m	15° 56'	18h.56m	24° 40'	15h.30m	18° 57'	9h.40m	14° 46'	23h.22m.	6° 35'	1h.10m	6° 43'
FULL MOON	..	10	11	44 A.M.	6 15 40	18 10	19 23	24 1 15	15 45	19 49	9 41	14 46	23 22	6 31	1 9	6 41
LAST QUARTER	..	17	11	13 A.M.	11 16 10	20 16	19 49	23 5 15	15 59	20 37	9 41	14 47	23 23	6 27	1 9	6 39
NEW MOON	..	25	4	22 P.M.	16 16 41	22 4	20 15	21 52	16 14	21 20	9 40	14 50	23 23	6 21	1 9	6 38
PERIGEE	..	..	9	6 P.M.	21 17 14	23 28	20 40	20 24	16 29	21 59	9 40	14 55	23 24	6 15	1 9	6 38
APOGEE	..	..	22	6 A.M.	26 17 48	24 23	21 5	18 41	16 45	22 32	9 39	15 1	23 25	6 7	1 9	6 37





Full knee-deep lies the winter snow,  
And the winter winds are scarcely sighing  
Toll ye the church bell sad and slow  
And tread softly, and speak low,  
For the old year lies a-dying. TENNYSON.

Those who have read that exquisite little song of Shakspeare's, at the close of "Love's Labour Lost"—and who is there that has not?—can never forget the perfect and finished wintry picture which every line presents. The cycles are first seen hanging beside the wall like great long, cold, bright-pointed spear-heads, which, only to look at, causes Dick, the shepherd, to blow his tingling nails more eagerly; to stamp, and jump, and shake off the clotted snow from his heavy shoes, as he beats his numbed feet upon the ground. Tom, who is seated beside the large old yawning kitchen fire-place, jumps up as if he were struck, by the head of a cross-bolt, when he sees Marian enter, with her nose "red and raw," her milk starred and frozen, in the clean white pail, running down over the bright, cold, polished hoops, on which it has congealed, like beaded pearls. Tom wants no summoning; but, leaping up, with a "God a mercy," hurries off to the log-house, and, shouldering a couple of such mighty blocks as could only be hurled in the huge old-fashioned fire-places of Shakspeare's day, rushes into the large hall without ceremony, well nigh stumbling over the great shaggy stag-hound, which lies stretched out at the foot of the old Knight, who, seated in his high-backed oaken chair, watches the sparks, as they go dancing above the quaintly-fashioned hand-irons, up the wide dark chimney, and rubs his hands for very cold. Without, the wind is blowing, bleak and bitter, whistling round the gable-ends of the ancient mansion, yet scarcely turning the frozen weathercock, while beside the hedges, which stretch along the "foul

ways," the birds sit shivering and brooding in the snow—cold, with all their feathers, and scarcely able to peck the frozen berries, though their pointed beaks are rendered sharper by hunger. Sunday comes, and in the old, cold, grey country church, where the figures of Knights are freezing in icy mail, as their grim effigies lie stretched out with folded hands, the old Knight, having left his hall, and his log fire, can scarcely hear a word the parson says, for the loud and incessant coughing. One aisle coughs against the other; north answers south—the sound is contagious; it is caught in the chancel, and all the rounded periods of the old Divine are lost amid that never-ceasing chorus; and the old Knight is thankful when he again places his feet upon his own hearth, and sees his bowl of smoking lambs-wool placed before him, on the surface of which the roasted crabs hob and hiss, as they are popped in hot, from the red logs which Tom had piled upon the fire. Outside, the staring owl is crying "To-whit, too-whoo," somewhere about the red-bricked twisted chimneys. Such is the picture which the immortal Poet has drawn of Winter in twelve brief lines, each of which would form a text for a longer passage than we have written as a summary of the whole.

Now the brief days are cold, cheerless, and gloomy; the woods are naked and desolate; there is a sad, leaden, melaucholy colour about the sky; the open country is silent, the fields are empty, the laues abandoned by the village children, and, excepting the robin, you hear not the voice of a bird amid the win-



landscape. You wander on in the direction of the village, and there, upon the large frozen pond, surrounded by a few aged willows, you behold a group of banty rustics amusing themselves with the healthy exercise of sliding, and making a strange, hollow, and unearthly sound, as they run upon the ice. You see the sportsman far off, with his dogs and gun, and behold the white smoke rolling beside the hedge in the valley, while the report awakens the low and sleeping echoes. Further on, along the frozen and cheerless road, you see the village carrier's grey tilted cart, rocking between the naked hedgerows, as it moves slowly on past the cold white guide-post, by the embankment which is covered with withered and hoary grass, beside the long plantation where the snow is piled beneath the dark green fir trees, past the reedy pool where the flags stand with their sharp frozen edges, looking as if they would cut like a sabre, so cold, keen, and piercing do they appear.

Dreary would December be, did it not bring with it merry Christmas, with its bolly, and ivy, and mistletoe, through the leaves of which peep the scarlet, and purple, and dull white berries, giving a green and summer appearance to our rooms, and throwing a cheerfulness around our hearts. We see the laden coach rolling past our window, piled high with game, hares, and pheasants, and great white geese, and black turkeys, whose plumage the wind blows back as they swing suspended from the roof; conjuring up visions of huge comfortable fires, well-spread tables, and happy faces, all congregated to do honour to good Old Christmas, whom Southey has beautifully drawn as seated beside the high-heaped hearth in his great armed-chair, watching the children at their sports, or pausing at times to stir the huge fire, and every now and then sipping the bright brown ale. For nights before the happy season arrives, we hear the village bells, awakening the surrounding silence by their silver music, and throwing a cheerful sound over the wild wintry landscape. When the morning of that old and holy day arrives, we hear the rustic waits chanting some simple Christmas carol, as they stand in the grey moonlight, at the front of the picturesque parsonage-house, telling how Christ was on that day born, and that while shepherds were attending their flocks by night, the Angel of the Lord descended, and proclaimed tidings of peace and good-will to all mankind. How plaintive and tremulous do those old chants fall upon the ear, sinking noiselessly and peacefully into the heart, and filling the soul with a holy and reverential awe; and, while the cock from the neighbouring farm makes answer to the carol of the village waits, we recall that exquisite passage of Shakespeare, in which, alluding to some old superstition, he says:

Some say, that ever 'gainst that season comes  
Wherein our Saviour's birth is celebrated,  
This bird of dawning singeth all night long.

Or we turn to those bye-gone times, so beautifully and feelingly described by Irving, who says:—"Christmas seemed to throw open every door, and unlock every heart. It brought the peasant and the peer together, and blended all ranks in one warm generous flow of joy and kindness. The old halls of castles and manor-houses resounded with the harp and the Christmas carol, and their ample boards groaned with the weight of hospitality. Even the poorest cottage welcomed the festive season with green decorations of bay and holly; the cheerful fire glanced its rays through the lattice, inviting the passenger to raise the latch and join the gossip knot huddled round the hearth, beguiling the long evening with legendary jokes and oft-told Christmas tales."

In our eye, Christmas never looks so beautiful as when it has been ushered in by snow, and frost, and rime; when the thatched roofs of the cottages are whitened over, and the branches of the trees are laden with feathery flakes; when the ivy that covers the grey and weather-beaten church-porch is half buried beneath the weight of accumulated snow, as if

Nature, in awe to Him,  
Had doffed her gaudy trim,  
With her great Master so to sympathise,  
Hiding her guilty front with innocent snow.

Such a scene, witnessed under one of those cold, clear, blue skies which sometimes hangs over the earth in December, with the cottage chimnies sending up their columns of pale silver smoke, and a group of happy faces emerging from the ancient village church, sighing or smiling alternately as they recognise a child or a relation who has walked miles to bid them a merry Christmas—or, as they glance at the surrounding graves, and think of those who will never more sit at the high-piled table, over which the mistletoe branch again hangs, as it did in the days of old. Scott, in the following lines, has graphically described these ancient festivities:—

The fire, with well-dried logs supplied,  
Went roaring up the chimney wide;  
The huge hall-table's oak-leaf lace,  
Scrubbed till it shone, the table to grace  
Rose then upon its massive board  
No mark to part the Squire and Lord.  
Then was brought in the lusty brawn  
By old blue-coated serving-men

Then the grim hoar's head frowned on high,  
Crested with hays and rosemary.

England was merry England when  
Old Christmas brought his sports again;  
'Twas Christmas broached the mightiest ale;  
'Twas Christmas told the merriest tale;  
A Christmas gambol o't would cheer  
The poor man's heart through half the year.

Those who have looked upon the shadows of the trees as they are reflected upon the ground at this season of the year, cannot fail at being struck by the beautiful forms which they present. Every twig and branch is as clearly made out as if drawn with a dark pencil upon white paper; there you see endless patterns for embroidery and netting—open-work, square, or diamond-shaped threads, that seem to run into squares and ovals, crossing and turning in every imaginable form. In frosty weather, almost every object we look upon is beautifully marked, from the ragged flakes that hang upon the moss-covered boughs—the crimson berries, that seem enervated with the whitest silver—the dark leaves of the evergreens, along which run pearly lines of frost-work—the bladed grass, sprinkled all over with minute pearls, down to the starry and diverging rays, which every little hollow that contained water has assumed,—all are beautiful. But pick up the skeleton of a leaf, when only the fine fibres are left; hold it between your eye and the light, and you will confess that never did lady wear a lace collar woven in the finest frame, of so fine and delicate a texture as the network of the fallen leaf; and the graceful cup-moss, when closely examined, is shaped in the forms of the most delicate cups, and urns, and vases, pale and dark green, and chased with silver, and all as neatly wrought as if they had come from the hand of the most finished artist.

Sometimes, on a fine day in December, when the snow has disappeared, there is a green Spring-look about the meadows, where the grass has sprouted up afresh beneath the Autumn rains, especially in those pastures from which the cattle were driven away early in the season. Under the hedgerows, and among the shady copses, peeping from amid the fallen foliage, we see the hardy leaves of the primrose and the violet, looking as green and fresh as if it were already the first month of Spring, for neither frost nor snow has power to destroy them in these sheltered places. Near spring-heads, which seldom freeze, we see the little wagtail, the smallest bird that walks, planting one leg before the other, and surveying everything with his sharp eye alights upon, in his busy endeavour to pick up a meal. The larks huddle together in small parties, and seem, by their

Wistful looks, to wish that the air was warm enough to sing in; and if an unusually fine day should break out by the close of the next month, they will be seen trying their wings a little way up amongst the trees, and scattering around a few stray notes; and sometimes, at this season of the year, we see the porch of a cottage wreathed with the China rose, whose pale blossoms throw out a faint sweet perfume, and, with the green foliage, form a Summer-like scene amid the gloom, and cloud, and darkness of mid-Winter. The author of "Waverley" has left us a most graphic picture of the *ennui* which sometimes besets the hardy sportsman at this season. It is full of minute and excellent painting, and abounds in those little touches which tell that it has been struck off from the life, and is worthy of a place beside the little gem which we have commented upon at the opening of the present month.

When dark December glooms the day,  
And takes our Autumn joys away;  
When short and scant the sunbeams throw  
Upon the weary waste of snows  
A cold and profitless regard,  
Like patron on a needy bard  
When sylvan occupation's done,  
And o'er the chimney rests the gun,  
And hang in idle trophy, near  
The game, pouch, fishing-rod, and spear  
When wily ferret, rough and grin,  
And grey bound with his length of limb  
And pointer, now employed no more,  
Cumber our parlour's narrow floor

When in his stall the impatient steed  
Is long condemned to rest and feed;  
When from our snow-encircled home,  
Scarce cares the hardest step to roam,  
Since path is none, save that to bring  
The needful water from the spring;  
When wrinkled news-pape, twice cooned o'er  
Beguiles the weary hour no more,  
And darkling politician crossed,  
Leveighs against the lingering post;  
And answering howe'er's sore complaints  
Of carriers' snow-impe'd wains;—  
When such the country cheer, I come,  
Well-pleased, to seek our city home.

The kitchen garden is now peeping into at this time, when there is so little to be seen in the out-of-door world. The earthed-up celery beds have a fresh and green appearance, and the lettuces which were planted late, wear a healthy Spring look; while cauliflowers, kale, brocoli, cabbages, and greens of every description, have now a crispy and tempting tenderness, which is fully appreciated when they come to throw their odour around the table, as they are placed beside the red and juicy ham, and the well-fed pullets. If a hare or rabbit cross our path, we scarcely regard them with the eye of a naturalist now, but think what a favour there would be about the one jugged, and the other, with a few accessories, wrapt up under the comfortable crust of a pie.

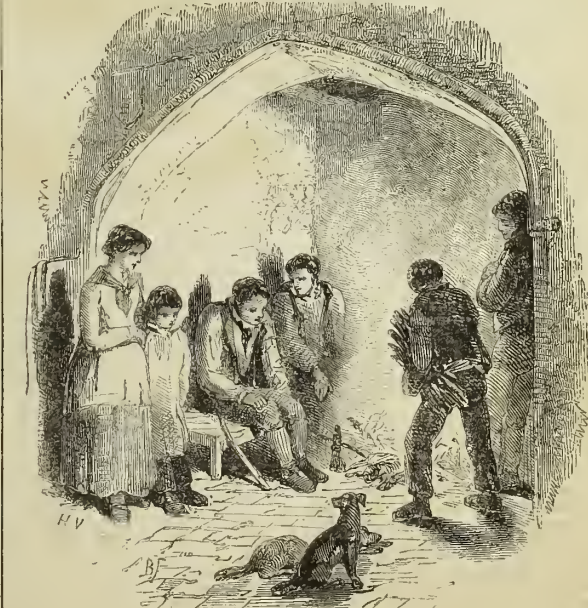
The rosemary flowers this month; and there were few plants held in higher esteem than this by our ancestors. They used it to stir up the spiced Christmas tankard; it was also dipped in their drinking cups at weddings, and borne before the bridal party as they went to church. It was strewn upon the dead; and Herick, in allusion to these customs, says that the rosemary

Grows for two ends, it matters not at all,  
Be it for my bridal or my burial.

I shall conclude the description of this month by a snow-scene, taken from my "Pictures of Country Life," descriptive of a ride over a cold, cheerless common:—"The snow had fallen all night long, and continued throughout the day without ceasing. Over the wide, bleak, unsheltered common, it lay deep and untrodden, blown here and there into wild, fanciful ridges, just as the ground rose and fell, or where the wind had whirled it; and it was only by some white-covered hillock of stones, a furze bush of taller growth, the remains of an aged hawthorn, and the relics of an old finger-post, that a practised eye was enabled to trace the winding of the road. All around hung the low, dull, leaden-coloured sky, so low, that, as far as the eye could stretch, it seemed to rest everywhere upon the snow, save where, on the furthest rim of the horizon, the level monotony of the line was broken by a steep slate roof, now covered with snow; and that was all which stood visible of the Union Workhouse, for the rest of the building was lost in the distance. It was so cold and cheerless a day, that not even a donkey—the hardest defier of wind and weather—was to be seen in the whole wide range of the sky-bound common, for even he had sought a shelter in some unseen hollow; nothing stirred amid the wild solitude of that wintry scene."

The close of December brings with it one great consolation—the shortest day is past, and, after a few more evenings, we shall see them slowly lengthen; and when the snow-drop appears, we know that

The storms of Wintry time will quickly pass,  
And one unbounded Spring encircle all.



(Country Scenes for every Month in this Almanack are written by Thomas Miller.)



## THE WEATHER IN ENGLAND.

In a country like England, where the changes of the weather are so frequent and its kind so very different within a short interval of time, the subject of the weather is constantly before every person.

To very many persons their notice of the weather is confined to noting its changes by popular signs; and it is remarkable to what an extent popular prejudice influences the minds of many persons. To those persons who study the weather as a science, or to a useful purpose, the preceding remarks on the barometer will be interesting. The following remarks upon the weather in each month, have been deduced from the Greenwich observations of 1841, 1842, 1843, and 1844; the quantities spoken of are those deduced from the mean results of all those years, from the observations of the barometer, and of the dry and wet bulb thermometer, as taken simultaneously at the National Observatory.

**JANUARY**—This is usually the coldest month of the year; its average temperature from the four years Observatory observations was  $36^{\circ} 4$  (which is read  $36^{\circ}$  and four-tenths of a degree); and the average daily range of the reading of the thermometer was  $7^{\circ} 6$ ; the average amount of water mixed with the air was such that if it had been all precipitated at one time it would have produced water to the depth of 3 inches on the earth; this water was so spread that there were two grains and six-tenths in a cubic foot of air. The degree of humidity of the air was 91, were complete saturation would be represented by 100; so that had there been three-tenths of a grain only more in a cubic foot, the air would have been quite saturated. The average weight of dry air—that is, air deprived of all moisture—is such as to balance a column of mercury, 29in. 552 high, and the weight of a cubic foot of air, under the average degree of humidity, heat, and pressure, was 552 grains. The average fall of rain is about  $1\frac{1}{2}$  inches, and the sky is three-fourths covered by cloud. Upon an average the coldest day in the year usually occurs on or about the 20th of this month.

**FEBRUARY**—The general damp state of the air which prevails in January, usually also extends to this month. Upon the average of the preceding four years, the increase of heat over that of January is only four-tenths of a degree, its average temperature being  $36^{\circ} 8$ , and its average daily range is  $9^{\circ} 3$ . The average amount of water, and degree of humidity, is the same as in the previous month. The average weight of dry air was such as to balance a column of mercury 29 inches 455 high, and the weight of a cubic foot of air, under its average heat, humidity, and pressure, was 549 grains. The fall of rain usually amounts to  $1\frac{1}{2}$  inches, and the sky is usually three-fourths covered by cloud. Frost and snow are frequent in this month, as well as cold rain and sleet; yet, a few occasional fine days occur, exhibiting a great contrast to the usual weather of the month. The general character of this month is uncertainty, and one of alternate change. Towards the end of the month the Sun begins to have considerable power.

**MARCH**—The temperature this month advances  $7^{\circ} 1$ , being the greatest increase of heat from one month to the next of any in the year. The average daily range of temperature is  $11^{\circ} 8$ ; the average amount of water mixed with the air is such that, if it were all precipitated at any one time, it would produce water to the depth of 3 inches on the earth; and this water is so spread that 3 grains is in a cubic foot of air. The degree of humidity is 86, complete saturation being represented by 100; and it would require a half grain of water additional to saturate a cubic foot of air; so that there is an increase of water in the air, but the temperature has outstripped this advance, and the air becomes in a drier state. The average weight of the atmosphere of dry air is such as to balance a column of mercury 29 502 inches high; and the weight of a cubic foot of air, under the average degree of humidity, heat, and pressure, is 543 grains. The average fall of rain amounts to  $1\frac{1}{2}$  inches, and the sky is less cloudy than in the two preceding months. With this month the spring quarter commences. Gales of wind may be expected at about the time of the Equinox.

**APRIL**—The mean temperature of the air increases only  $4^{\circ}$ ; the average temperature of the month is  $47^{\circ} 8$ ; the average daily range is much increased, and now amounts to  $17^{\circ} 3$ . The average amount of water mixed with the air would produce very nearly four inches in depth on the earth's surface, if all were precipitated; and this is spread so that rather more than three grains and a quarter are in a cubic foot of air. The degree of humidity is reduced to 81, and it would require more than three-fourths of a grain of water additional to saturate a cubic foot of air. The average weight of the atmosphere of dry air is 29.522 inches, and the average weight of a cubic foot of air, under the average heat, humidity, and pressure, is 540 grains. The average fall of rain is but little more than one inch, and the sky is the freest of cloud of any in the year. In this month the change in the appearances of Nature is very striking; the trees put on their green leaves, and the meadows begin to assume a varied appearance. Frequent showery weather.

**MAY**—The temperature of the air increases  $6^{\circ}$ ; the average for the month being  $53^{\circ} 8$ , and its average daily range is  $16^{\circ} 2$ . The average amount of water mixed with the air is such, that if it were all precipitated at once, it would produce water to the depth of 4 inches; and this is spread in such a way that the average quantity in a cubic foot of air is four grains nearly in weight. The degree of humidity is 83; and it would require three-fourths of a grain additional of water to each cubic foot of air to saturate it. The average weight of the atmosphere of air, deprived of all moisture, is such as to balance a column of mercury 29 inches 426 in height; and the average weight of a cubic foot of air, under the average heat, humidity, and pressure, is 534 grains. The fall of rain usually amounts to two inches, and the sky is about six-tenths cloudy.

**JUNE**—The advance of the temperature continues, and amounts to  $5\frac{1}{2}^{\circ}$ , the average temperature of the month is  $59^{\circ} 1$ ; the daily range of the readings of the thermometer is larger than in any other month of the year, amounting to  $19^{\circ} 1$  on the average. The amount of water mixed with the air is such that were it all precipitated at one time, it would produce water to the depth of  $5\frac{1}{2}$  inches on the earth's surface; and this is so distributed that 4 grains in weight are in a cubic foot of air. The degree of humidity is the least in the year, being 78; and it would require one grain and four-tenths of water additional to a cubic foot to saturate it; so that, although there is much more water in the air than there is in any one of the previous months, yet the air would almost take double the amount of additional water to saturate it than it would in any of those months. The weight of the dry air is such as to balance a column of mercury 29 inches 391 in height, and the weight of a cubic foot of air, under the average heat, humidity, and pressure, is 526 grains only. The fall of rain is about  $1\frac{1}{2}$  inches, and the sky is about as free from cloud as in May.

**JULY**—The temperature of this month exceeds that of June by  $1^{\circ}$  only, being  $60^{\circ} 1$ ; its average daily range is  $16^{\circ} 5$ . The average amount of water mixed with the air is such, that if all were precipitated, it would produce water to the depth of more than 6 inches; this water is so spread that a quantity equal in weight to six grains, is in a cubic foot of air. The degree of humidity is 82, and the air would require  $1\frac{1}{2}$  grain nearly additional water to each cubic foot to saturate it. The weight of the dry air is such as to balance a column of mercury 29 inches 336 in height; and the weight of a cubic foot of air, under the average heat, humidity, and pressure, is 525 grains. The average amount of rain which falls this month is three inches, and the sky on the average is covered by clouds 69 parts out of a hundred.

**AUGUST**—In this month the temperature arrives at its maximum, and also the largest quantity of vapour is suspended in the air. Its average temperature is  $61\frac{1}{2}^{\circ}$  nearly, and the average daily range of the readings of a thermometer is  $17\frac{1}{2}^{\circ}$ . The average amount of water mixed with the air is such that, if all were precipitated, it would cover the earth's surface to the depth of  $6\frac{1}{2}$  inches; and this quantity is so distributed that 54 grains nearly, in weight, is in a cubic foot of air. The degree of humidity is 84, and it would require additional water to the amount of 1 grain 1 to a cubic foot to saturate the air. The weight of dry air is such as to balance a column of mercury 29 inches 305 in height, and this quantity is less than in any other month. The weight of a cubic foot of air, under the average heat, humidity, and pressure, is 524 grains, being less than at any other time of the year. Rain to the depth of 2.4 inches falls, and 59 out of 100 parts of the sky are covered by cloud on the average.

**SEPTEMBER**—The average temperature of this month is  $57\frac{1}{2}^{\circ}$  nearly, being  $3^{\circ}$  less than that of August; this reduction of temperature is more in the day than at night; the average daily range of the thermometer reading is  $15^{\circ}$ . The average amount of vapour mixed with the air is such that if it were all precipitated, it would produce water to the depth of six inches, and this is spread so that nearly five grains are in a cubic foot of air. The degree of humidity is 88, and seven-tenths of a grain of water additional, to a cubic foot of air, would saturate it. The average weight of dry air is such as to balance a column of mercury 29.375 inches in height. The average weight of a cubic foot of air, under the average heat, humidity, and pressure, is 530 grains. Rain falls to the amount of  $2\frac{1}{2}$  inches, and 57 parts out of 100 of the sky are covered by cloud on the average. Some very fine weather usually occurs in this month. At the latter part of the month gales of wind may be expected.

**OCTOBER**—The reduction of temperature this month is very great, amounting to no less than  $10^{\circ}$  nearly; the average temperature of the month is  $48^{\circ}$  nearly; and the average daily change of temperature is  $13^{\circ}$  nearly. The average amount of vapour in the air is such that if it were all precipitated at one time, it would produce water to the depth of 4 inches nearly; and this water is so distributed that there is 3 grains in a cubic foot of air. The degree of humidity is 90, and the air would be saturated with four-tenths of a grain of water additional to a cubic foot of air. The average weight of the atmosphere of dry air, is such as to balance a column of mercury 29 inches 373 in height; and the weight of a cubic foot of air under the average heat, humidity, and pressure, is 537 grains. Rain falls to the depth of 4 inches, nearly, on the average, and the sky is covered by cloud in the proportion of 66 out of a 100 parts.

**NOVEMBER**—The decline of temperature amounts to  $4\frac{1}{2}^{\circ}$  during this month; the average for the month is  $43\frac{1}{2}^{\circ}$ ; and the average daily range of temperature is  $8\frac{1}{2}^{\circ}$ . The average amount of water in the air is such as to produce water to the depth of less than four inches, if all were precipitated; and this is so distributed that the weight of water in a cubic foot of air averages  $3\frac{1}{2}$  grains. The degree of humidity is 92, and the air would be wholly saturated with three-tenths of a grain of water additional to a cubic foot of air. The weight of the dry air is such as to balance a column of mercury 29 inches 373 in height; and the weight of a cubic foot of air under the average heat, humidity, and pressure, is 542 grains. The average fall of rain is  $3\frac{1}{2}$  inches, and three-fourths of the sky is on an average covered by cloud.

**DECEMBER**—The temperature decreases this month  $2\frac{1}{2}^{\circ}$ ; and its average is  $40\frac{1}{2}^{\circ}$ ; the average daily range is  $6\frac{1}{2}^{\circ}$  only. The average amount of vapours mixed with the air is such that if it were all precipitated it would produce water to the depth of  $3\frac{1}{2}$  inches. The degree of humidity is the same as that in November. The average weight of dry air is greater than in any other month in the year, and it is such as to balance a column of mercury to the height of 29 inches 617. The average weight of a cubic foot of air, under the average heat, humidity, and pressure, is 552 grains, being the same as that in January. The average amount of rain is less than in any other month, being one inch only. The sky is usually three-fourths covered by cloud. There is little variety in the appearances of this and of the preceding month; the general features of both are very similar.

In the preceding account of the weather of each month, the principal observations consist of the average or mean state of the atmosphere with respect to its weight or pressure, its temperature, and its moisture. The readings of the Barometer are given in inches and thousandths parts of an inch, as in January, in the article upon the Barometer, its mean height 29.774 is to be read as 29 inches, and 774 thousandths parts of another inch.

The average state of the atmosphere, is that state in which all disturbing causes are equally balanced, and is that which is most likely to be the prevailing state, at any future time, at the same season of the year. And if at any time a great departure from these mean values takes place, it may be considered that such is an unusual state of things, and deserves particular attention.

The temperature registered is that of the air in the shade, at the height of four feet above the ground, and protected from the effects of radiation. A thermometer placed on the grass at night, and fully exposed to the sky, is liable to a reading of  $32^{\circ}$  in every month of the year.

## THE BAROMETER.

There are many persons possessed of this instrument, and many are in the daily habit of seeing one, and applying its readings to their use, who entirely neglect to study the principle of its action, and thereby lose a vast deal of valuable and interesting information.

The atmosphere by which we are surrounded is composed of an elastic, invisible fluid; a large mass of water in the invisible shape of vapour, and other bodies. These have weight, and it necessarily follows that that portion of the mixture which is nearest to the surface of the Earth, has to bear the pressure of all that which is above it, and therefore it is more compressed in its lowest stratum than anywhere else.

It is found that a column of air one inch square, and reaching from the earth to the top of the atmosphere, weighs about 14 lbs. To determine this, common weighing will not do, because of the remarkable property which distinguishes fluids from solids. A solid body, as a mass of iron for instance, presses in one direction only, viz., towards the centre of the earth. A fluid body, on the contrary, presses in every direction—downwards, upwards, and laterally; for instance, if a bladder be filled with compressed air, and an aperture be made in it, the air will escape as readily and with as much velocity, if the orifice be made in the top or the side, or at the bottom. It follows, therefore, that the pressure which the atmosphere exerts at the Earth's surface, is exerted equally in every direction, upwards, downwards, and laterally. Hence we cannot ascertain its weight by the ordinary means, because the scale of a beam is pressed upwards by the air beneath it in the same degree as it is pressed downwards by that which is above it. But if two hollow spheres be placed together without any mode of fastening them whatever, and the air be extracted from the hollow parts of each, it will be found that the two halves cannot be separated by any force less than 14 times as many pounds as there are square inches in the section of the sphere.

If we take 14 lbs. as the average pressure of the atmosphere on a square inch of the Earth's surface, any variation in this pressure must arise from a variation



THE ILLUSTRATED LONDON ALMANACK FOR 1848.

In one or other, or in all the elements of which the atmosphere is composed. It is to these variations that the different readings of a barometer are to be attributed. Many of them depend upon the variations of heat, an increase of which causes the aerial particles to expand and consequently to ascend and to flow off laterally above, over those places where the temperature is less and the air diminishing in volume. Hence the statical pressure of the atmosphere ought to diminish as the heat increases, but as the temperature increases the amount of evaporation also increases; and, therefore, the mass of water mixed with the air is augmented, and this would cause the pressure to be increased. The reading of the barometer which represents the height of the mercurial column caused by the joint pressure of dry air and vapour, would be increased or diminished according as one or other of these causes preponderated. The knowledge of the amount of the change in the readings of a barometer, which is to be attributed to each of these causes, is highly important; in fact, without them very little prospectively can be known of the weather. The connexion thus existing between the atmosphere of air and that of water, would naturally lead us to the description and use of the aneroid and wet bulb thermometer, by the use of which the amount of the latter is determined; this, however, we must defer to some other opportunity. I am, Sir, Mr. Glaisher, accompanied by extensive tables to be used with these observations. We, the fore, pass on to say a few words on the principle of the wheel-barometer.

The commoner, or wael barometer, the tube is turned up, as a siphon tube, the larger leg being closed and the shorter leg being open. The atmospheric pressure on the mercurial surface in the shorter leg, and the fall or rise therein is accompanied by a rise or fall in the longer leg. On the surface of Mercury in the shorter leg is placed a weight floating upon it; this weight is connected with a string passing over a pulley and balanced by another weight; therefore, as the mercury rises or falls, the float rises or falls with it, and the pulley moves round. To this pulley is attached an index or hand; between the pulley and the hand is placed a circular scale, like a clock-face, which is divided into inches, and marked with certain words.

It is plain that when the pulley moves round, a revolving motion is communicated to the hand, and the number of inches thus indicated by the hand, shows the rise or fall of the mercurial column.

The dependence which is commonly placed on the wheel barometer is much more than it deserves. The dial about which the index moves is, as before stated, graduated, and at different parts of it the words "Fair," "So Fair," "Rain," "Much Rain," are engraved. The index points to one or other of these according to the pressure of the atmosphere, and it is always to the same word at the same pressure. It is found that no certain pressure is accompanied with certain weather, or with any certain meteorological phenomena, as rain for instance. The phenomenon of rain depends more on the comparative changes in the pressure, in connexion with the heat of the air, and the amount of water then mixed with the air, than on any fixed barometrical reading. Again, as each stratum of air has to bear a greater pressure than that next above it, and as its pressing force on other bodies is dependent on the force with which itself is pressed, the barometer column of mercury decreases in proportion as we ascend at about one-tenth of an inch for every 90 feet; so that, if at the bottom of a hill 500 feet high, the index should point to a certain reading, on the barometer being carried to the top of the hill, it will point more than half an inch less. Neither rain nor any other meteorological phenomenon depends solely on any particular *fixed* position of the atmosphere.

At the Royal Observatory, at Greenwich, the exact length of the mercurial column is determined every two hours, night and day, except Sundays. From these observations, extending over a period of four years, the following have been found to be the average monthly height:—

Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
29.774	29.677	29.759	29.806	29.767	29.798	29.777	29.772	29.807	29.660	29.651	29.874

An examination of these numbers show that no certain increase or decrease takes place depending on the period of the year. The mean daily range of the readings was found to be as follows:—

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
0.232	0.218	0.207	0.161	0.131	0.147	0.148	0.145	0.147	0.224	0.220	0.186

From the observations of the dry and wet bulb thermometers taken simultaneously with the above, it is found that the amount of water in the atmosphere each month was such as to balance a column of mercury of the following height:—

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
0.222	0.222	0.257	0.284	0.341	0.407	0.441	0.467	0.432	0.314	0.278	0.257

The increase and decrease of the amount of water, with the increase and decrease with the temperature, is here manifest.

By taking these latter numbers from the average mean height of the barometer, the pressure of the atmosphere of dry air will be shown, and it will be found that it diminishes as the heat increases.

MAGNETIC DECLINATION OR VARIATION OF THE  
COMPASS.

In the Almanack of last Year, we gave the average Monthly position of the Magnetic Needle, with respect to the Astronomical Meridian for the years 1841, 1842, and 1843; within the last year, the volume of the Greenwich Magnetical and Meteorological Observations for the year 1844 has been published, from which we learn that the following were the monthly values of the Westerly Declination, deduced from the Two-hourly Observations in the year 1844:—

January	.. ..	23° 19' 22"	July	.. ..	23° 18' 49"
February	.. ..	23 18 43	August	.. ..	23 13 25
March	.. ..	23 18 42	September	.. ..	23 13 6
April	.. ..	23 18 42	October	.. ..	23 12 52
May	.. ..	23 19 23	November	.. ..	23 11 50
June	.. ..	23 19 8	December	.. ..	22 59 41

And that the mean Westerly Declination for the year was  $23^{\circ} 15' 19''$ , being  $3' 36''$  larger than that deduced from the observations in the preceding year.

The Declination of the Magnet—or, in other words, its deviation from the Astronomical Meridian—was explained in last year's Almanack, and also the Magnet's general position, upon a circuit of the Earth passing through Greenwich, was also there explained. In general, if we take the circuit of the Earth under any parallel of latitude, we shall find a place where the marked end of the Magnet points towards the north, or where the Magnetic and Astronomical Meridians are coincident; the deviation of the Magnet at places situated on one side of this line

becomes westerly, and increases till it arrives at its greatest values, then deviates till it is nothing again.

The amount of the declination is very variable; it is influenced by change of latitude and longitude, but does not follow their laws; indeed it is so very irregular that nothing but actual observation avails for the construction of tables showing its value at different places. It may readily be inferred that the amount of information required for such purposes is immense. Upon this important investigation philosophers in all parts of the world are now engaged. If we start from the Equator, we shall find that the difference between the greatest Eastern and greatest Western Declination increases as we approach the poles of the Earth. In Greenland, the West declination is so great, that the marked end of the Magnet points nearly to the West, and Parry found a point in the West of Greenland where the marked end, or North end, actually pointed to the South.

If we suspend a magnetized bar by its centre of gravity, so as to take from it the action of gravity, it will settle in the Magnetic Meridian, but that extremity of it which is directed towards the north will immediately point downwards, or, as it is called Dip, forming an angle with the horizon, which, at Greenwich, is about  $69^{\circ}$ . This angle is called Magnetic Inclination or Dip.

The following are the mean Quarterly values of this element as observed at the Royal Observatory, Greenwich, in the years 1843 and 1844.

## MEAN QUARTERLY MAGNETIC DIP.

Months forming the Quarterly Period.	At 9h. A.M.		At 3h. P.M.	
	1843.	1844.	1843.	1844.
January, February, March ..	68 59	68 59	69 0	68 59
April, May, June .. ..	69 0	69 0	69 1	69 1
July, August, September ..	69 1	69 2	69 2	69 1
October, November, December	69 0	68 58	69 1	68 57

And the yearly mean for the year 1843 at 9 A.M. was  $69^{\circ} 0'$

" " " 3 P.M. was 69 1

And the yearly mean for the year 1844 at 9 A.M. was 69 0

3 A M.	was 69	0
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It would seem from these values that the value of the Dip was nearly the same during these two years; it is probable that its maximum value for this locality was attained at this time, and that from this time forward it will begin to decrease.

These magnetic values of the Dip and Declination at Greenwich are not always the same. At every different place they undergo secular, annual, monthly, daily, and irregular changes.

And if the Dip presents differences in different places, it may be interesting to trace the source of its variations. Suppose we set out from Greenwich towards the south, in proportion as we advance, the magnet becomes more and more horizontal, or the Dip decreases, till, in the neighbourhood of the Equator, it will be parallel to the horizon, or the Dip is nothing. On passing into the southern hemisphere, the south pole of the needle dips downward, and the north pole (or that which in the northern hemisphere dips downwards) will be pointed upwards, and the more so as we move more south. Starting from Greenwich and proceeding northwards the contrary would take place; the north end would point more directly downwards. Thus it will be seen that in one hemisphere the north end of the needle dips downwards, and in the other hemisphere the south end of the needle dips downwards. These two hemispheres are separated by a line, upon all points of which the magnet is horizontal, or there is no Dip. This line, which cuts the terrestrial Equator at different points, is called the Magnetic Equator.

## THE PLANET NEPTUNE

AS OUR Almanack of last year was just printed, we heard of the planet beyond Uranus, and we then gave an abstract of all we knew of this new body of the Solar System, which had been discovered by means depending on Theoretical Astronomy, and confirming, in a very remarkable manner, the theory of universal gravitation. A very short time after this Professor Challis, the Director of the Cambridge Observatory, published a statement describing the course of observations which had been carried on at that Observatory, with the view of discovering this planet, founded on the calculations of Mr. Adams.

his plan, founded on the hypothesis of the existence of a planet, Professor Challis stated that Mr. Adams, Fellow of St. John's College, showed him a memorandum in the year 1841, recording his intention of attempting to solve this problem as soon as he had taken his B. A. degree. Accordingly, after graduating in 1843, he obtained an approximate solution, and afterwards pursued the subject to that extent as actually to place in the hands of the Astronomer Royal, and of Professor Challis, the elements of the then unknown planet, before any elements of this planet had been obtained, or at least published by M. Le Verrier.

On July 29th, 1847, Professor Challis commenced observing, and by October 1st, he had then registered 3,150 positions of stars. On this day he heard that Dr. Galle had discovered the planet at Berlin, on September 23rd. It afterwards appeared that Professor Challis himself had observed the planet on August 4th, and again on August 12th.

Professor Challis adds that it was impossible that any one could have comprehended the problem more fully than Mr. Adams did; "that he carefully considered all that was necessary for its exact solution, and that he had a firm conviction from the results of his calculations, that a planet was to be found."

Whatever honour is, therefore, due to M. Le Verrier, and it is certainly great, equal honour and praise are due to Mr. Adams. The former gentleman has had some rewards for his labours; we believe that the latter gentleman's honours are yet to come.

In a subsequent paper by Professor Challis, dated 1847, March 22, he states that Mr. Adams has calculated the elements from the observed places of the planet, and which he gives as follows:—

Heliocentric longitude of the planet referred to the Mean      °   '   "

Equinox of 1847	..	..	..	..	326	41	12	3
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Heliocentric motion in longitude in 100 days .. ..	36 5 52
--	---------

Heliocentric Latitude South .. .. .	30 34 4
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Change of Heliocentric Latitude in 100 days .. ..	1 4 44
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Longitude of the Descending Node " ..	..	..	310	3	44	0
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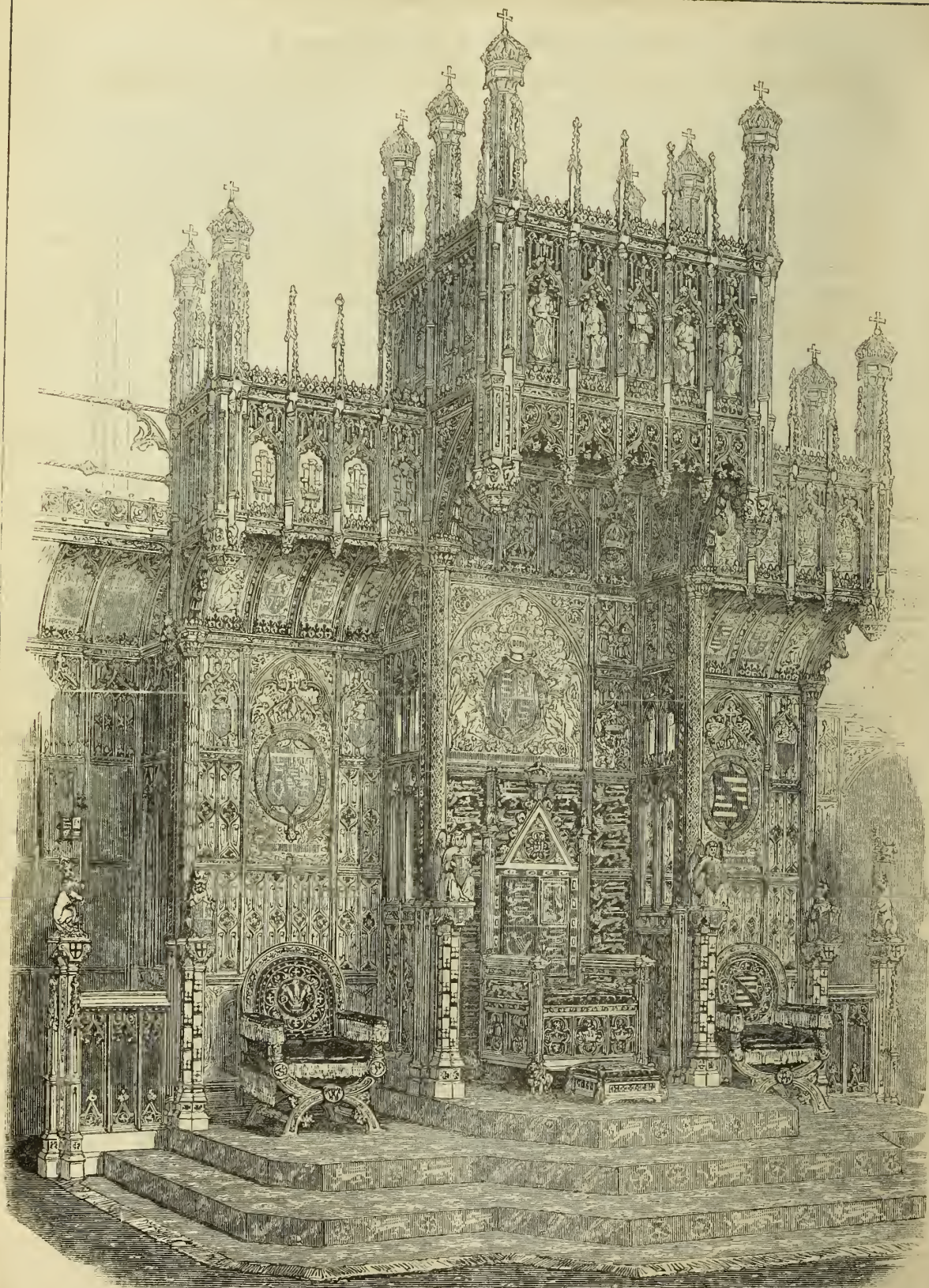
Inclination of the orbit .. .. .	1 46 49
Distance from the Sun .. .. .	30 00

Distance of the planet from the Sun .. .. .	30 00 8
Radius .. .. .	167 miles

Period . . . . . 167 years

The attempt to fix the name of the discoverer upon new planets has been unsuccessful in every instance. The planet discovered by Herschel is called Uranus; Piazzi gave to Ceres the name of the ordinary star; the constellation of Aries, yet, Ceres is the name by which it is now known. Harding, Olbers, Hencke, and Hind all discovered planets, yet it was the established custom of selecting names from the Heavens Divinities. Immediately after the planet beyond Uranus was discovered, M. Le Verrier, in letters addressed to several persons, said, the "Board of Longitude" has decided in favour of "Neptune," with the sign of the trident. And this name, "Neptune," is the one generally adopted.





THE THRONE IN THE NEW HOUSE OF LORDS.



# THE NEW PARLIAMENT, OF BOTH HOUSES.

## SUMMARY OF THE MEMBERS.

### LORDS.

Peers of the Blood Royal	2
Dukes	20
Marquises	20
Earls	116
Viscounts	22
Barons	200
	—380
Archbishops	2
Bishops	24
Scott Representative Peers	16
Irish Representative Peers	28
	450

### COMMONS.

England—County Members	143
Isle of Wight	1
Universities	4
Cities, Boroughs, and Cinque Ports	321
Wales—County and Borough Members	20
Scotland—County, City, and Borough Members	53
Ireland—County Members	64
Universities	2
Cities and Boroughs	39
	656

## MEMBERS OF THE HOUSE OF LORDS.

Those marked † have supported Lord John Russell's Government; and those c have opposed the measures of that Administration.

ABBREVIATIONS.—K. G. signifies Knight of the Garter, G. C. B. Knight Grand Cross of the Bath, K. T. Knight of the Thistle, K. P. Knight of St. Patrick, G. C. H. Knight of the Guelphs of Hanover, P. C. Privy Councillor, Soc. Rep. Scotch Representative Peer, Ir. Rep. Irish Representative Peer, cr. created.

- c Abercorn (2d Marq of), Jas Hamilton, K.G., P.C.—cr 1790  
 † Abercromby (2d Bar), Geo Ralph Abercromby—cr 1801  
 c Aberdeen (4th Earl of), Geo Hamilton Gordon, K.T., P.C., F.R.S.—cr 1682  
 c Abergavenny (4th Earl of), Rev Wm Novell—cr 1781  
 c Abingdon (5th Earl of), Montagu Bertie, D.C.L.—cr 1682  
 c Abinger (2d Bar), Robt Campbell Scarlett—cr 1835  
 c Acheson (1st Bar) Archibald Acheson—cr 1847  
 c Allesbury (1st Mar of), Chas Bruce Bradenell-Bruce, K.T.—cr 1821  
 c Alisa (2d Marq of) Arch Kennedy—cr 1831  
 c Altemarle (4th Earl of), Wm Chas Koppel, P.C., G.C.H.—cr 1696  
 c Alvanley (2d Bar), Wm Arden—cr 1801  
 c Amherst (1st Earl), Wm Pitt Amherst, P.C., G.C.H., D.C.L.—cr 1826  
 † Anglesey (1st Marq of), Hon Wm Paget, K.G., G.C.B., G.C.H., P.C.—cr 1815  
 c Argyll (7th Duke of), John Douglas Edw Hen Campbell—cr 1701  
 † Arundell of Wardour (11th Bar), Hon Benedict Arundell—cr 1605  
 c Ashburnham (4th Earl of), Bertram Ashburnham—cr 1730  
 c Ashburton (1st Bar), Alex Baring, P.C., D.C.L.—cr 1835  
 c Atholl (6th Duke of), Geo Augustus Fred John Murray—cr 1703  
 † Auckland (1st Earl of), Geo Eden, P.C., G.C.B.—cr 1839  
 c Audley (20th Bar), George Edward Thicknesse-Touchet—cr 1297  
 c Aylesford (5th Earl of), Heneage Finch, F.S.A.—cr 1714  
 c Bagot (2d Bar), Wm Bagot, F.S.A., F.L.S., F.R.S.—cr 1780  
 c Balcarras (7th Earl of), Jas Lindsay—cr 1650  
 c Bandon (2d Earl of, Ir Rep), J Bernard, D.C.L.—cr 1793  
 c Bangor (Bp of), Chris Bethell, D.D.—cr 1835  
 c Bateman (2d Bar), Wm Bateman Bateman-Hanbury—cr 1837  
 c Bath and Wells (Bp of), Hon Rich Bagot, D.D.—cr 1835  
 c Bathurst (4th Earl), Hon Geo Bathurst, D.C.L.—cr 1772  
 c Bayning (3d Bar), Rev Hen Wm Powlett—cr 1797  
 c Beauchamp (3d Earl), John Reginald Pyndar—cr 1815  
 c Beaufort (7th Duke of), Hen Somerset, K.G.—cr 1682  
 c Beaumont (8th Bar), Niles Thos Stapleton—cr 1307  
 c Beauvale (1st Bar), Fred Jas Lamb, P.C., G.C.B.—cr 1839  
 c Bedford (7th Duke of), Fras Russell, P.C., K.G.—cr 1691  
 c Belhaven and Bontion (8th Bar), Robt Montgomery Hamilton—cr 1647  
 c Berosford (1st Visct), Wm Carr Berosford, G.C.B., D.C.L., P.C.—cr 1823  
 c Berners (5th Bar), Rev Hen Wilson—cr 1455  
 c Berwick (4th Bar), Rev Rich Noel-Hill—cr 1781  
 c Beesborough (5th Earl of), John Geo Brabazon Ponsonby—cr 1739  
 c Beverley (2d Earl of), George Percy—cr 1790  
 c Bexley (1st Bar), Nich Vansittart, P.C., F.R.S., P.C.—cr 1823  
 c Blayney (12th Bar, Ir Rep), Cadwallader Davis Blayney—cr 1621  
 c Bolingbroke (4th Visct), Hen St John—cr 1712  
 c Bolton (2d Bar), Wm Powlett-Powlett—cr 1797  
 c Boston (3d Bar), Geo Irvy, D.C.L.—cr 1761  
 c Bradford (2d Earl of), Geo Aug Fred Hen Bridgeman—cr 181  
 c Braybrooke (3d Bar), Rich Griffin, L.L.D.—cr 1785  
 c Breadthorne (2d Marq of), John Campbell, K.T.—cr 1831  
 c Bristol (1st Marq of), Fred Wm Ilsevery, F.R.S.—cr 1826  
 c Brougham and Vaux (1st Bar), Hen Brougham, P.C.—cr 1830  
 c Brownlow (1st Earl), John Cust, D.C.L., F.R.S.—cr 1815  
 c Bruce (Bar), Geo Wm Fred Brudenell-Bruce—cr 1746  
 c Buccleuch and Queensberry (5th Duke of), Walter Francis Montagu Douglas Scott, K.G., K.T.—cr 1663  
 c Buckingham and Chandos (2d Duke of), Richard Plantagenet Temple Nugent Brydges  
 Chandos Grenville, K.G., P.C.—cr 1822  
 c Buckinghamshire (5th Earl of), Geo Robt Hobart-Hampden—cr 1746  
 c Burlington (2d Earl of), Wm Cavendish, F.R.S., D.C.L.—cr 1831  
 c Bute (2d Marq of), John Crichton-Stuart—cr 1796  
 c Byron (7th Baron), Geo Anson Byron—cr 1643  
 c Cadogan (3d Earl), Geo Cadogan, C.B.—cr 1800  
 c Caledon (3d Earl, Ir Rep), Jas Dupre Alexander—cr 1800  
 c Calthorpe (3d Bar), Geo Gough-Calthorpe—cr 1793  
 c Cambridge (1st Duke of), H.R.H. Prince Adol Fred, K.G., G.C.B., P.C.—cr 1801  
 c Camdon (2d Marq of), Geo Chas Pratt, K.G.—cr 1812  
 c Camoys (3d Bar), Thos Stonor—cr 1383  
 c Campbell (1st Bar), John Campbell, P.C.—cr 1841  
 c Camperdown (1st Earl of), Robt Dundas Duncan-Haldane—cr 1831  
 c Canning (1st Visct), Chas John Canning, P.C.—cr 1828  
 c Canterbury (Archbishop of), Wm Howley, D.D., P.C.  
 c Canterbury (2d Viscount), Chas John Manners-Sutton—cr 1835  
 c Cardigan (7th Earl of), Jas Thos Bradenell—cr 1651  
 c Carew (1st Bar), Robert Shapland Carew—cr 1634  
 c Carlisle (5th Earl of), Geo Howard, F.R.S., P.C.—cr 1661  
 c Carlisle (Bp of), Hon Hugh Percy, D.D.  
 c Carnarvon (2d Earl of), Hen John Geo Herbert—cr 1793  
 c Carrington (3d Bar) Robt John Carrington—cr 1796  
 c Carleton (3d Bar), John Thynne—cr 1781  
 c Carysfort (2d Earl of), John Proby—cr 1789  
 c Castlemaine (3d Bar Ir Rep), Richard Handcock—cr 1812  
 c Cathcart (2d Earl), Chas Murray Cathcart, K.C.B.—cr 1814  
 c Cawdor (1st Earl), John Fred Campbell—cr 1827  
 c Chancery (2d Earl of, Ir Rep), Francis Wm Caulfield, K.P., M.R.I.A.—cr 1763  
 c Charlottesville (2d Earl of, Ir Rep), Chas Wm Bury—cr 1806  
 c Chester (Bp of), Jno Bird Sumner, D.D.  
 c Chesterfield (6th Earl of), Geo Aug Fred Stanhope—cr 1628  
 c Chichester (3d Earl of), Hen Thos Pelham—cr 1801  
 c Chichester (Bp of), Ashurst Turner Gilbert, D.D.  
 c Cholmondeley (2d Marq), Geo Horat Cholmondeley, P.C.—cr 1815  
 c Churchill (2d Bar), Fran Geo Spencer—cr 1815  
 c Clancarty (3d Earl of), Wm Thos Le Poer Trench—cr 1803  
 c Clancarty (1st Marq of), Cluck John de Burgh, K.P., P.C.—cr 1825  
 c Clanwilliam (3d Earl of), Rich Meade—cr 1778  
 c Clare (2d Earl of), John Fitz-Gibbon, K.P., P.C.—cr 1795  
 c Clarendon (4th Earl of), Geo Wm Fred Villiers, G.C.B., P.C.—cr 1776  
 c Cleveland (2d Duke of), Hen Vane, K.G.—cr 1833  
 c Clifden (4th Visct), Hen Agar-Ellis—cr 1781  
 c Clifford of Chudleigh (8th Bar), Hugh Chas Clifford—cr 1672  
 c Clinton (18th Bar), Chas Rodolph Trevisan—cr 1299  
 c Clonbrock (3d Bar, Ir Rep), Robt Dillon—cr 1790  
 c Cloncurry (2d Bar), Valentine Browne Lawless—cr 1789  
 c Colborne (1st Bar), Nicholas Wm Ridley Colborne—cr 1839  
 c Colchester (2d Bar), Chas Abbott—cr 1817  
 c Combermere (1st Visct), Stapleton Stapleton-Cotto, C.B., D.C.L., P.C.—cr 1825  
 c Congleton (2d Baron), John Vesey Parnell—cr 1841  
 c Conyngham (2d Marq of), Fran Nath Conyngham, K.P., G.C.H., P.C.—cr 1816  
 c Cork, Cloyne, and Ross (Bp of), Samuel Kyo, D.D.  
 c Cork and Orrery (8th Earl of), Edmund Boyle—cr 1620  
 c Cornwallis (5th Earl), Jas Manners—cr 1753  
 c Cottenham (1st Bar), Chas Chris Pops, P.C.—cr 1836  
 c Courtown (4th Earl of), Jas Thos Stopford—cr 1762  
 c Cowley (1st Bar), Hen Wellesley, G.C.B., P.C.—cr 1828  
 c Cowper (6th Earl), Geo Aug Fred Cowper—cr 1718  
 c Craven (2d Earl), Wm Craven—cr 1801  
 c Crewe (3d Bar), Hungford Crewe—cr 1806  
 c Crofton (1st Bar Ir Rep), Edw Crofton—cr 1797  
 c Cumberland (1st Duke of), His Majesty Ernest Augustus (King of Hanover), K.G., G.C.B., K.P., P.C.—cr 1739  
 c Dacres (19th Bar), Thos Brand—cr 1307  
 c Dalhousie (10th Earl of), Jas Andrew Broun-Ramsay—cr 1633  
 c Dartmouth (4th Earl of), Wm Legge, F.R.S.—cr 1711  
 c Dartrey (1st Bar) Richard Dawson—cr 1847  
 c De Freyne (1st Bar), Arthur French—cr 1839  
 c De Grey (1st Earl), Thos Philip De Grey, K.G., P.C.—cr 1816  
 c Delamere (1st Bar), Thos Cholmondeley—cr 1821  
 c De-la-Warr (5th Earl), Geo John Sackville-West, D.C.L., P.C.—cr 1761  
 c De-la-Isle and Dudley (1st Bar), Philip Chas Sidney, D.C.L.—cr 1835  
 c De Mauley (1st Bar), Wm Francis Spencer Ponsonby—cr 1838  
 c Denbigh (7th Earl of), Wm Basil Percy Fielding, D.C.L., P.C.—cr 1622  
 c Denman (1st Bar), Thos Denman, P.C.—cr 1834  
 c Derby (13th Earl of), Edw Smith Stanley—cr 1845  
 c De Ros (20th Bar), Wm Lenox Lascelles Fitzgerald-De-Ros—cr 1261  
 c Desert (3d Earl of, Ir Rep), John Otway O'Connor Cuffe  
 c De Saumarez (2d Bar), Rov Jas Saumarez—cr 1831  
 c De Tabley (3d Bar), Geo Wm Wren—cr 1826  
 c De Viset (2d Visct, Ir Rep), John Vesey—cr 1776  
 c Devon (3d Earl of), Wm Courtenay—cr 1553  
 c Devonshire (6th Duke of), Wm Spencer Cavendish, K.G., D.C.L., P.C.—cr 1691  
 c Digby (2d Earl of), Edw Digby, D.C.L.—cr 1790  
 c Dinorbin (1st Bar), Wm Lewis Hughes—cr 1831  
 c Donegal (3d Marq of), Geo Hamilton Chichester—cr 1791  
 c Doneraile (3d Visct, Ir Rep), Hayes St. Legor—cr 1785  
 c Donoughmore (3d Earl of), John Hely Hutchinson, K.P.—cr 1800  
 c Dorchester (3d Bar), Guy Carleton—cr 1786  
 c Dormer (11th Bar), Jos Thaddeus Dormer—cr 1615  
 c Douglas (3d Bar), Chas Douglas—cr 1790  
 c Down, Connor, and Dromore (Bp of), Rich Mant, D.D.  
 c Downes (2d Bar, Ir Rep), Ulysses Burgh, K.C.B.—cr 1822  
 c Downshire (4th Marq of), Arthur Wills Bulundil Sandys Trumbull Windsor Hill—cr 1759  
 c Drogheda (3d Marq of), Hen Francis Seymour Moore—cr 1791  
 c Dublin (Archbp of), Rich Whately, D.D.  
 c Ducie (2d Earl of), Hen Geo Fras Reynolds-Moretton—cr 1837  
 c Dunally (2d Bar, Ir Rep), Hen Prittie—cr 1800  
 c Dunfermline (1st Bar), Jas Abercromby, P.C.—cr 1839  
 c Dunraven and Mountstuart (2d Earl of, Ir Rep), Windham Hen Wyndham-Quinn—cr 1822  
 c Ebor (Bp of), Thos Tuck, D.D.  
 c Ebor (Bp of), Thos Tuck, D.D.  
 c Emswiler (3d Earl of), Wm Wollaughby Cole—cr 1789  
 c Erne (3d Earl of, Ir Rep), John Crichton—cr 1798  
 c Erroll (17th Earl of), Wm Harry Hay—cr 1453  
 c Erskine (2d Bar), David Montagu Erskine—cr 1806  
 c Essex (6th Earl of), Geo Jas Prevost—cr 1733  
 c Eton (2d Earl of), John Scott, D.C.L.—cr 1821  
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 c Eton (2d Earl of), John Scott, D.C.L.—cr 1821  
 c Ellenborough (1st Earl of), Edw Law, G.C.B., P.C.—cr 1814  
 c Elmsmere (1st Earl of), Francis



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

- Ferrers (9th Earl), Washington Sewallis Shirley—cr 1711  
 c Feversham (2d Bar), Wm Duncombe, cr 1826  
 f Life (4th Earl of), Jas Duff, K.T., G.C.H.—cr 1759  
 f Fingall (9th Earl of), Arthur Gos Plunkett, K.P.—cr 1628  
 f Fitzhardinge (1st Earl), Wm Fitzhardinge Berkeley—cr 1311  
 f Fitzwilliam (5th Earl), Chas Wm Wentworth Fitzwilliam—cr 1716  
 f Foley (4th Bar), Thos Hen Foley, P.C.—cr 1776  
 c Forester (2d Bar), John Geo Weld Forester, P.C.—cr 1821  
 f Fortescue (4th Earl), Hugh Fortescue, P.C.—cr 1789  
 c George (4th Visct), Hen Hall Gage—cr 1720  
 f Gainsborough (1st Earl), Chas Noel—cr 1841  
 c Galloway (9th Earl of), Randolph Stewart—cr 1623  
 f Gardner (3d Bar) Alan Legge Gardner—cr 1800  
 c Gifford (2d Bar) Robt Francis Gifford—cr 1824  
 c Glasgow (5th Earl of), c James Glasgow—cr 1703  
 f Glenelg (1st Bar), Chas Grant, P.C.—cr 1835  
 c Glenigall (2d Earl of, Ir Rep), Rich Butler—cr 1816  
 c Gloucester and Bristol (Bp of), Jos Hen Monk, D.D.  
 c Golodolph (1st Bar) Francis Golodolph Osborne—cr 1832  
 f Gouford (2d Earl of, Ir Rep), Archibald Acheson, G.C.B., P.C.—cr 1806  
 f Gough (1st Bar), Hugh Gough, G.C.B.—cr 1816  
 f Gratton (5th Duke of), Hen Fitz-Roy—cr 1675  
 c Grantley (3d Bar) Fletcher Norton—cr 1782  
 f Graville (2d Earl), Granville Geo Leveson Gower, P.C.—cr 1833  
 f Grey (3d Earl), Hen Geo Grey, P.C.—cr 1802  
 c Guilford (6th Earl of), Rev Francis North—cr 1752  
 c Haddington (9th Earl of), Thos Hamilton, P.C.—cr 1619  
 f Hamilton and Brandon (10th Earl of), Alex Hamilton Douglas, K.G., P.C.—cr 1843  
 f Harborough (4th Earl of), Robt Sherard—cr 1719  
 c Hardinge (1st Visct), Hen Hardinge, G.C.P., P.C.—cr 1846  
 c Hardwicke (4th Earl of), Chas Philip Yorke, D.C.L.—cr 1751  
 c Harewood (3d Earl of), Hen Lascelles, cr 1812  
 c Harrington (4th Earl of), Chas Stanhope—cr 1742  
 c Harris (3d Bar), Geo Francis Robt Harris—cr 1815  
 c Harrowby (1st Earl of), Dudley Ryer, P.C.—cr 1800  
 f Hastings (Bar), Jacob Astley, D.C.L.—cr 1789  
 f Hatherton (1st Bar), Edw John Littleton, P.C.—cr 1835  
 c H. warden (3d Visct, Ir Rep), Cornwallis Maude—cr 1791  
 f Hawke (4th Bar), Edw Wm Harvey Hawke—cr 1776  
 f Haddington (2d Mar of), Thos Teylour—cr 1802  
 c Hereford (15th Visct), the Rev Robt Fleming Devereux—cr 1550  
 f Hereford (Bp of), Thos Musgrave, D.D.  
 c Herford (4th Mar of), Richard Soynour-Conway, K.G.—cr 1793  
 c Heytesbury (1st Bar), Wm A Court, G.C.B., P.C.—cr 1826  
 f Hill (2d Visct), Rowland Hill—cr 1802  
 f Holland of Holland (4th Earl), Hen Edw Fox—cr 1762  
 f Howard de Walden and Seaford (6th Bar) Chas Augustus Ellis, G.C.B.—cr 1857  
 f Howden (2d Bar), John Hobart Caradoc, K.C.II.—cr 1819  
 c How (1st Earl), Richd Wm Penn Curzon Howe, D.C.I., P.C.—cr 1821  
 f Huntington (12th Earl of), Francis Theophilus Henry Hastings—cr 1529  
 f Huntly (9th Earl of), Geo Gordon, K.T.—cr 1769  
 f Hchester (3d Earl of), Hen Stephen Fox-Strangways—cr 1755  
 c Jersey (5th Earl) Geo Child Villiers, P.C.—cr 1697  
 f Keane (2d Bar), Edw Arthur Wellington Keane—cr 1830  
 f Kennard (2d Earl of), Valentine Browne  
 c Kenyon (3d Bar) Geo Kenyon, F.S.A.—cr 1738  
 c Kingstons (4th Earl of), Robt King—cr 1763  
 f Kinnaird (9th Bar), Geo Wm Fox Kinnaird—cr 1682  
 c Kinnoul (10th Earl of), Thos Robt Drummond Hay—cr 1701  
 c Lake (3d Visct), Werwick Lake—cr 1807  
 f Langdale (1st Bar), Hen Bickerton, P.C.—cr 1836  
 f Lansdowne (3d Mar of), Hen Potty Fitz Maurice, K.G., P.G., D.C.L.—cr 1724  
 c Lauderdale (9th Earl of), James Maitland—cr 1624  
 f Leeds (7th Duke of), Francis Godolphin D'Arcy Osborne—cr 1694  
 f Leicester (2d Earl of), Thos Wm Coke—cr 1837  
 f Leigh (1st Bar), Chas Lewis Leigh—cr 1807  
 f Leicester (3d Duke of), Aug Fred Fitz Gerald, P.C.—cr 1766  
 f Leitrim (2d Earl of), Nath Clements, C.L., P.C.—cr 1785  
 f Lichfield (1st Earl of), Thos Wm Anson, D.C.L., P.C.—cr 1831  
 c Lichfield (Bishop of), John Lonsdale, D.D.  
 f Lifford (3d Bar), Thos Atherton, D.C.L.—cr 1771  
 c Limerick (2d Earl of), Wm Hen Tounison Pery—cr 1803  
 c Liochlu (Bp of), John Kaye, D.D.  
 c Lindsey (10th Earl of), Geo Aug Fred Albemarle Bertie—cr 1626  
 f Lismore (1st Visct), Cornelius O'Callaghan—cr 1806  
 f Liverpool (1st Bar), Chas George Fox, G.C.B., D.C.L.—cr 1794  
 f Llandaff (Bp of), Edward Coleston, D.D.  
 c Louisa (Bp of), Chas Jas Blomfield, D.D., P.C.  
 c Londonderry (3d Mar of), Chas Wm Vane, G.C.B., G.C.II., D.C.L., P.C.—cr 1816  
 c Longford (3d Earl of), Edw Mich Pakenham—cr 1785  
 c Lonsdale (2d Earl of), Wm Lord, P.C.—cr 1807  
 c Lorton (1st Visct Ir Rep), Robt Edw King—cr 1805  
 f Lovat (1st Bar), Thos Alex Fraser—cr 1837  
 f Lovelace (1st Earl of), Wm King—cr 1833  
 c Lucan (3d Earl of, Ir Rep), Geo Chas Bingham—cr 1795  
 f Luffchurch (1st Bar) John Singleton, P.C., D.C.L., F.R.S., P.C.—cr 1817  
 f Lyttelton (1st Bar), Wm Lyttelton—cr 1791  
 f Macclesfield (5th Earl of), Thos Parker—cr 1721  
 c Malmesbury (3d Earl of), Jas Howard Harris—cr 1830  
 c Manchester (6th Duke of), Geo Montagu—cr 1719  
 c Maunsell (2d Bar), John Hen Wm Maunsell, P.C.—cr 1807  
 c Mansfield (4th Earl of), David Murray, K.T.—cr 1792  
 c Marvers (2d Bar), Chas Herbert Fierpont—cr 1806  
 c Marlborough (5th Duke of), Geo Spencer Churchill, D.C.L.—cr 1702  
 c Massarene (10th Visct), John Skeffington—cr 1660  
 c Maynard (3d Visct) Hen Maynard—cr 1765  
 c Mayo (4th Earl of, Ir Rep), John Bourke, G.C.H., D.C.L.—cr 1785  
 f Meath (10th Earl of), John Chamber Brabazon, K.P., P.C.—cr 1627  
 f Melbourne (2d Visct), Wm Lamb, P.C.—cr 1781  
 c Melville (1st Visct), Robt Saunders Dundas, K.T., P.C. F.R.S.—cr 1802  
 f Methuen (1st Bar), Paul Methuen—cr 1838  
 f Middleton (7th Bar), Digby Willoughby—cr 1711  
 c Middleton (5th Visct), G. Allen Brodick—cr 1717  
 f Milford (1st Bar), Rich Bulkeley Phillips Phillips—cr 1817  
 f Minto (2d Earl of), Gilbert Elliot-Murray-Kynynmond, P.C., G.C.B.—cr 1813  
 f Monson (6th Bar), Wm John Monson—cr 1728  
 f Montagu (1st Bar), Thos, Springe, Rine, C., F.R.S.—cr 1829  
 f Montfort (3d Bar), Hen Bromley, D.C.L.—cr 1741  
 c Montrose (4th Duke of), Jas Graham, K.T.—cr 1707  
 c Moray (10th Earl of), Francis Stuart, K.T.—cr 1561  
 f Morley (2d Earl of), Edm Parker—cr 1815  
 c Morungton (4th Earl of), Wm Pole-Fryer-Long-Wellesley—cr 1740  
 f Mostyn (1st Bar), Edw Pryce Lloyd—cr 1831  
 c Mount-Cassell (3d Earl of, Ir Rep), Ernest Augustus Edgumbe—cr 1769  
 f Munster (2d Earl of), Wm Geo Fitz-Clarence—cr 1835  
 f Nelson (3d Earl), Horatio Nelson—cr 1805  
 c Newcastle (13th Duke of), Hen Chas Howard, P.C.—cr 1843  
 f Norfolk (1st Mar of) Constantine Hen Phipps, G.C.H.—cr 1838  
 f Northampton (2d Mar of) Spencer Joshua Ayrne Compton, D.C.L.—cr 1812  
 c Northumberland (4th Duke of), Algernon Percy, D.C.L. F.R.S.—cr 1766  
 f Northwick (2d Bar), John Russell—cr 1797  
 f Norwich (Bp of), Edw Stanley, D.D.  
 c O'Neill (3d Visct, Ir Rep) John Bruce Richard O'Neill—cr 1795  
 c Onslow (3d Earl of), Arthur Geo Onslow—cr 1817  
 c Orford (3d Earl of), Horatio Walpole—cr 1806  
 c Ormonde (2nd Mar of), John Butler, K.T.—cr 1825  
 c Osoy, Ferns, and Leichlin (Bp of), Jas Thos O'Neill—cr 1711  
 f Oxford and Mortimer (5th Earl of), Edw Harley—cr 1711  
 c Oxford (Bp of), Sam Willerford, D.D.  
 f Paget (Bar), Hon Paget, P.C.—cr 1550  
 f Pannure (1st Bar), Wm Manley—cr 1631  
 c Pembroke and Montgomery (12th Earl of), Robt Hen Herbert—cr 1551  
 f Peterborough (Bp of), Geo Davys, D.D.  
 f Petre (11th Bar), Wm Hen Fras Petre, F.R.S.—cr 1603  
 f Plunkett (1st Bar), Wm Conyngham Plunkett, P.C.—cr 1827  
 f Poltimore (1st Bar), Geo Warwick Hampfild—cr 1831  
 f Pouffret (5th Earl of), Geo Wm Rich Farmer—cr 1721  
 f Ponsoby (1st Visct), John Ponsoby, G.C.R.—cr 1839  
 c Portland (4th Duke of), Wm Hen Cavendish Scott-Bentinck, D.C.L., P.C.—cr 1716  
 c Portman (1st Bar), Edw Berkeley Portman—cr 1837  
 f Portsmouth (3d Earl), John Chas Wallop  
 c Poulett (5th Earl), John Poulett—cr 1705  
 c Powls (2d Earl of), Edw Herbert, K.G., D.C.L.—cr 1804  
 f Radnor (3d Earl of), Wm Playdell-Bouverie—cr 1765  
 c Ranfurly (2d Earl), Thos Knox—cr 1831  
 c Ravensworth (1st Bar), Thos Hen Liddell—cr 1821  
 c Rayleigh (1st Bar), John Jas Strutt—cr 1821  
 c Redesdale (2d Bar), John Thos Freeman-Mitford—cr 1802  
 c Richmond (5th Duke of), Chas Gordon Lennox, K.G., P.C.—cr 1775  
 c Ripon (1st Earl of), Fred Jobu Robinson, P.C.—cr 1833  
 f Ripon (Bp of), Chas Thos Loughley, D.D.  
 c Rivers (4th Bar), Geo Pitt-Rivers—cr 1802  
 c Rochester (Bp of), Geo Murray, D.D.  
 c Roden (3d Earl of), Robt Jocelyn, K.P., P.C.—cr 1771  
 f Rodney (6th Bar), Robt Donnet Rodney—cr 1782  
 c Romney (Earl of), Chas Marsham—cr 1801  
 f Ross (3d Earl), Arch John Ross, K.T., P.C.—cr 1703  
 f Rose (3d Earl of, Ir Rep), Wm Parsons, D.C.L.—cr 1809  
 c Rosslyn (3d Earl of), Jas Alex St. Clair-Erskine—cr 1806  
 f Rossmore (3d Bar), Hen Robt Weston—cr 1796  
 f Roxburgh (6th Duke of), Jos Hen Robt Innes Kox, K.T.—cr 1707  
 c Rutland (5th Duke of), John Hen Mannors, K.G.—cr 1781  
 f Salisbury (2d Mar of), Jas Brownlow Wm Gascoigne-Cecil, K.G., P.C., D.C.L.—cr 1789  
 f Salisbury (Bp of), Edw Denison, D.D.  
 c Sandwich (7th Earl of), John Wm Montagu—cr 1660  
 c Sandys (3d Bar), Arthur Moyes Wm Hill—cr 1802  
 c Sayre (1st Bar), John Sayre, K.T.—cr 1771  
 f Scarborough (8th Earl of), John Lunley—cr 1690  
 c Sealsdale (3d Bar), Nathaniel Curzon—cr 1761  
 c Seaton (1st Bar), John Colborne, G.C.B.—cr 1839  
 f Sefton (3d Earl of), Cbeo Wm Molyneux—cr 1771  
 f Sefton (4th Earl of), Cbeo Wm Molyneux—cr 1771  
 c Shadley (4th Earl of), Rich Wm By—cr 1756  
 c Sheffield (2d Earl of), Geo Augustus Fred Chas Holroyd—cr 1816  
 f Sherborne (2d Bar), John Dutton—cr 1784  
 f Shrewsbury (17th Earl of), John Talbot—cr 1442  
 c Shroton (2d Visct), Rev Wm Leonard Addington—cr 1805  
 c Skelmersdale (1st Bar), Edw Bootle Wilbourn—cr 1828  
 f Sligo (3d Mar of), Geo John Browne—cr 1800  
 c Somers (2d Earl), John Somers-Cocks—cr 1821  
 f Somerset (11th Duke of), Edw Adolphus St. Manr, D.C.L., F.R.S., F.S.A.—cr 1546  
 c Somers (4th Bar), Geo John Milner—cr 1769  
 c Southampton (3d Bar), Chas Fitz Roy—cr 1780  
 f Spencer (1st Earl), Fred Spencer, P.C., C.B.—cr 1765  
 f St Asaph (Bp of), Thos Vowler Short, D.D.  
 f St David (Bp of), Connop Thirlwall, D.D.  
 c St Germans (3d Earl of), Edw Granville Elliot, P.C.—cr 1815  
 f St John of B'tose (14th Bar), St. Andw Beauchamp St John—cr 1559  
 f Stourton (18th Bar), Chas Stourton—cr 1418  
 c Stradbroke (2d Earl of), John Edw Conwallis Pous—cr 1821  
 f Stratford (1st Bar), John Byng, G.C.B., G.C.H., P.C.—cr 1835  
 c Stratford (6th Visct), Percy Cintou Sydney Smythe, G.C.H., P.C., G.C.H., LL.D., F.R.S.—cr 1828  
 f Stuart de Decies (1st Bar), Hen Villiers-Stuart, P.C.—cr 1839  
 c St Vincent (2d Visct), Edw Jervis Jervis—cr 1801  
 f Sudley (1st Bar), Chas Hanbury Jervis—cr 1828  
 f Suffolk (4th Bar), Edw Vernon Harbord—cr 1786  
 f Suffolk and Berkshire (16th Earl of), Thos Howard—cr 1603  
 f Sutherland (2d Duke of), Geo Granville Leveson Gower, K.G., P.C., D.C.L.—cr 1833  
 c Sydney (3d Visct), John Robt Townsend—cr 1789  
 f Talbot (2d Earl), Chas Chetwynd Talbot, K.P., P.C.—cr 1781  
 f Talbot de Malahide (1st Bar), Rich Wm Talbot—cr 1781  
 c Tankerville (5th Earl of), Chas Aug Bennet, P.C.—cr 1714  
 f Templemore (2d Bar), Hen Spencer Clanchester—cr 1831  
 c Terenure (2d Bar), John Hen Robert—cr 1827  
 f Teynham (16th Bar), Geo Hen Robt Curzon—cr 1616  
 f Thetford (11th Earl of), Henry Taiton—cr 1628  
 f Thurlow (3d Bar), Edw Thos Howell Thurlow—cr 1792  
 f Torington (7th Visct), Geo Byng—cr 1721  
 f Townshend (3d Mar of), Geo Feirs Townshend—cr 1786  
 f Uxbridge (Earl of), Geo Paget (Bar)  
 f Vauxhall (Bp of) Harrowden (7th Bar), Geo Browne Mostyn—cr 1523  
 f Vernon (6th Bar), Geo John Warren—cr 1762  
 c Verulam (2d Earl of), Jas Walter Grinston—cr 1815  
 f Vivian (2d Bar), Chas Crespien Vivian—cr 1811  
 c Waldegrave (8th Earl), Wm Waldegrave, C.B.—cr 1685  
 f Walsingham (5th Bar), Thos de Grey—cr 1783  
 f Ward (11th Bar), Wm Ward—cr 1664  
 c Warwick and Brooke (3d Earl of), Hen Rich Greville, K.T., D.C.L.—cr 1746  
 c Waterford (3d Mar of), Hen De-la-Por Beaufort—cr 1789  
 c Wellington (1st Duke of), Arthur Wellesley, K.G., G.C.H., D.C.L., P.C.—cr 1814  
 c Wenlock (1st Bar), Paul Beily Wellesley-Thompson—cr 1839  
 c Westmeath (1st Mar of, Ir Rep), Geo Thos John Nugent—cr 1832  
 c Westminster (2d Mar of), Rich Grasvenor—cr 1831  
 c Westmoreland (11th Earl of), John Fane, G.C.H., P.C., D.C.L.—cr 1424  
 f Wharfedale (2d Bar), John Stuart Wortley—cr 1836  
 c Whicklow (3d Earl of, Ir Rep), Wm Howard, K.P.—cr 1793  
 c Willoughby de Broke (8th Bar), Hen Peyto Verney—cr 1462  
 c Willoughby d'Eresby (19th Bar), Heter Robt Drummond-Willoughby, P.C.—cr 1313  
 c Wilton (2d Earl of), Thos Egerton, P.C., G.C.H.—cr 1601  
 f Winchester (14th Mar of), John Paulet—cr 1551  
 c Winchester (Bp of), Chas Rich Sumner, D.D.  
 f Winchelsea and Nottingham (10th Earl of), Geo Finch Hatton—cr 1628  
 c Wodehouse (3d Bar), John Wodehouse—cr 1797  
 f Worcester (Bp of), Hen Peps, D.D.  
 f Wrotesley (2d Bar), John Wrotesley—cr 1833  
 f Wyndford (2d Bar), Wm Sam Beest—cr 1829  
 f Yarborough (2d Earl of), Chas Anderson Worsley Peibem—cr 1837  
 c York (Bp of), the Rt Hon Edw Harcourt, D.D., D.C.L., P.C.  
 f Zetland (2d Earl of), Thos Dundas—cr 1838

## SCOTTISH REPRESENTATIVE PEERS.

- c Airlie and Lintrathen (8th Earl of, Sec Rep), David Ogilvy—cr 1634  
 c Colville (10th Bar, Sec Rep), John Colville—cr 1609  
 c Elphinstone (13th Bar Sec Rep) John Elphinstone  
 c Gray (16th Bar, Sec Rep), John Gray—cr 1445  
 c Home (11th Earl of, Sec Rep), Cospat Alex Ramsay-Horne—cr 1605  
 c Leven and Melville (8th Earl of, Sec Rep), David Leslie Melville—cr 1600  
 c Morton (18th Earl of, Sec Rep), Geo Sholto Douglas—cr 1458  
 c Orkney (2d Earl of, Sec Rep), Thos John Hamilton Fitz Maurice—cr 1695  
 c Polwarth (5th Bar, Sec Rep), Hen Frans Hepburne-Scott—cr 1699  
 c Rollo (9th Bar Sec Rep), Wm Rollo  
 c Saltoun (16th Bar, Sec Rep), Alex Geo Fraser, K.C.B.—cr 1445  
 c Seefield (6th Earl of, Sec Rep), Fras Wm Ogilvie-Graut—cr 1701  
 c Selkirk (6th Earl of, Sec Rep), Dunbar J. Douglas—cr 1616  
 c Sinclair (12th Bar, Sec Rep), Chas St Clair  
 c Strathallan (6th Visct, Sec Rep), Jas Andw John Lear Chas Drummond—cr 1666  
 c Tweeddale (5th Mar of, Sec Rep), Geo Hay, K.T., C.B.—cr 1684



## MEMBERS OF THE HOUSE OF COMMONS.

ABBREVIATIONS.—l means Liberal, c Conservative, p Protectionist, and s Son.

- Abdy, Thomas Neville. S of the late Capt Anthony Abdy, R.N. *Lyne Regis*  
 Abland, Sir Thos. B. Bart. D.C.L. *Devon, N.*  
 Acton, William. Eld s of the late Thos Acton, Esq. of West Acton. *Wicklow*  
 Adair, Hugh Edw. 2d s of Sir Robt Shafto Adair, Bart. *Ipswich*  
 Adair, Robt Alex Shafto. Eld s of Sir Robt Shafto Adair, Bart. *Cambridge bor*  
 Adare, Visct. Eld s of the Earl of Drumriven. *Glamorganshire*  
 Adderley, Chas Bowyer. *Staffordshire, N.*  
 Aglionby, Hon Aglionby. S of the Rev Sam Bateman, of Newbiggen Hall. *Cockermouth*  
 Alcock, Thos. S of Joseph Alcock, Esq. of Roehampton, Surrey. *Surrey, E*  
 Alexander, Nath. S of Rev Robt Alexander. *Antum*  
 Alford, Visct. Eld s of Earl Brownlow. *Bedfordshire*  
 Anson, Hon Geo. Br of the Earl of Lichfield. *Staffordshire, S*  
 Anson, Visct. Eld s of the Earl of Lichfield. *Lichfield*  
 Anstey, Thos Chisholm. 2d s of Thos Anstey, Esq. *Youghal*  
 Arbutnot, Hon Lieut-Gen Hugh, C.B. Br of Visct Arbutnot. *Kincardineshire*  
 Archdall, Marvyn Edw. Nephew of Gen Archdall, the late member. *Fermanagh*  
 Arkwright, Geo. S of Rich Arkwright, Esq. of Wilsley, Derbyshire. *Leominster*  
 Armstrong, Sir Andw. Bart. S of the late E Armstrong, of Gallen. *King's co*  
 Arundel and Surrey, Earl of. Eld s of the Duke of Norfolk. *Arundel*  
 Ashley, Lord D.C.L. Eld s of the Earl of Shaftesbury. *Bath*  
 Attwood, John. S of Jas Attwood, Esq. *Harwich*  
 Bages, Wm. Eld s of the late Ths Philip Bages, Esq. of Stradsett Hall, Norfolk, a descendant from a Swedish family. *Norfolk, W*  
 Bagot, Hon Wm. Eld s of Lord Bagot. *Denbighshire*  
 Bagshaw, John. Eld s of the late John Bagshaw, Esq. a banker of Coventry. *Harwich*  
 Bailey, Joseph. A Deputy-Lieut of Brecknockshire. *Brecknockshire*  
 Bailey, Joseph, Jun. S of the Member for Brecknockshire. *Herefordshire*  
 Baillie, Hon Edw. 2d s of Col Hugh Baillie. *Westminster*  
 Baines, Mat Talbot. Eld s of Edw Baines, Esq. a barrister-at-law, formerly M.P. for Leeds. *Hull*  
 Baldock, Edw Holmes. First returned for Shrewsbury in 1817. *Shrewsbury*  
 Baldwin, Chas Barry. Eld s of Col Baldwin. *Tonnes*  
 Baldwin, Geo. Bart. A Deputy-Lieut of the Exchequer. *Dorsetshire*  
 Barclay, Dav. S of the late Robt Barclay, Esq. of Bury Hill. *Sunderland*  
 Baring, Rt Hon Wm Bingham. Eld s of Lord Ashburton. *Thetford*  
 Baring, Rt Hon Fras Thornhill. Eld s of Sir T Baring, Bart. *Portsmouth*  
 Baring, Hon Bingham. Nephew of Sir Thos Baring, Bart. *Marlborough*  
 Baring, Thos. Bart. S of Sir Thos Baring, Bart. *Marlborough*  
 Barkly, Hon A. West India Proprietor. S of the late James Barkly, Esq. an eminent West India merchant. *Leominster*  
 Barnard, Edw Geo. A ship-builder. *Greenwich*  
 Barrington, Visct. A Peer of Ireland. *Berkshire*  
 Barrington, Thos. A Deputy-Lieut for London. Eld surviving s of Sir Robt Bateson, Bart. formerly M.P. for Londonderry. *Londonderry co*  
 Beckett, Wm S of the late and br of the present Sir John Beckett, Bart. *Leeds*  
 Bell, John. First returned for Thirsk in 1841. *Thirsk*  
 Bell, Matthew. Eld s of Matthew Bell, Esq. of Woolsington. *Northumberland S*  
 Bellamy, Rich Montagu. Br of Sir Patrick Bellamy. *Louth*  
 Benbow, John. Is solicitor to Lord Ward. *Dudley*  
 Bennett, John. Eld surviving s of Thos Bennett, Esq. of Pyl House. *Wills, S*  
 Bennet, Philip, Jun. S of Philip Bennet, Esq. of Rougham-Old-Hall, Suff. *Suffolk, W*  
 Bentinck, Lord Hon Wm Scott. S of the 4th Duke of Portland. *Nottinghamshire, N*  
 Bentinck, Lord Wm Geo Fred Scott. 2d s of the Duke of Portland. *Lynn-Regis*  
 Beresford, Wm. Cousin to the Marq of Waterford. *Essex, N*  
 Berkeley, Hon Francis Hon Fitz-Hardinge. 4th s of the 5th Earl Berkeley. *Bristol*  
 Berkeley, Hon Geo Chas Granley Fitz-Hardinge. A younger s of the late Earl Berkeley. *Gloucestershire, W*  
 Berkeley, Maurice Fred Fitz-Hardinge, C.B. 2d s of the 5th Earl Berkeley. *Gloucester city*  
 Bernal, Ralph. Father of R. Osborne, Esq. M.P. for Middlesex. *Rochester*  
 Bernard, Visct. Eld s of the Earl of Bandon. *Bandon*  
 Birch, Sir Thos Bernard, Bart. Only s of the late Sir Joseph Birch, Bart. of the Hailes, Lanca-shire, a Deputy-Lieut of Lancashire. *Liverpool*  
 Black, Sam Wensley. S of Major Blackall, of the E. L.C.'s Service. *Longford*  
 Blackstone, Wm Seymour. Grands of the great lawyer whose name he bears. *Wallingford*  
 Blake, Martin Jos. Is head of the house of Ballygunn. *Galway bor*  
 Blackmore, Rich. Eld s of Thomas Blackmore, Esq. of Littleton Hall. *Wells*  
 Blackford, Marq of. Eld s of the Duke of Marlborough. *Woodstock*  
 Blackwell, Reginald James. A magistrate for Monmouthshire. 2d s of Major Edw Blewitt, of Kensington, Middlesex. *Monmouth dist*  
 Boldo, Capt Hen Geo. S of the late Rev J Boldo, of Ampton, Suffolk. *Chippenharn*  
 Bolinger, Wm. 3d s of the late Edw Bolling, Esq. of Bolton. *Bolton-le-Moors*  
 Bourke, Rich Southwell. Eld s of Robt Bourke, Esq. of Hayes. *Kildare*  
 Bourne, Hon Edw Blyden. 2d s of the 3d Earl of Bath. *Kilmarnock*  
 Bowles, Wm. A Rear-Admiral and Companion of the Order of the Bath. *Launceston*  
 Bowring, John, LL.D. Eld s of Charles Bowring, Esq. of Exeter. *Bolton*  
 Boyd, John. S of John Boyd, Esq. of Belle Isle, co Antrim. *Coleraine*  
 Boyle, Hon Robt Edw. 2d surviving s of the 9th Earl of Cork and Orrery. *Frome*  
 Boyle, Visct. Eld s of Earl of Elinmore. *Staffordshire, N*  
 Bramston, Thos Wm. A Deputy-Lieut for Essex. Eld s of the late Thos Gardiner Bram-ston, Esq. of Skreens, Essex. *Essex, S*  
 Brand, Thos. Eld s of Lieut-Gen. the Hon Hen Otway Trevor, C.B. *Hertfordshire*  
 Bremridge, Rich. A solicitor in Barnstaple. *Barnstaple*  
 Bright, John. S of Jacob Bright, Esq. of Greenbank, near Rochdale. *Manchester*  
 Brinsley, Musgrave. Eld s of the late Capt Wastel Briscoe, of Cogburst, Sussex. *Hastings*  
 Broadley, Hen. S of the late H Broadley, Esq. *Yorkshire, E*  
 Broadwood, Hen. A brewer. *Bridgewater*  
 Brocklehurst, John, Jun. A silk manufacturer and banker. 2d s of John Brocklehurst, Esq. of Jordan Gate, Manchester. *Manchester*  
 Brockman, Edw Drake. Recorder of Folkestone. 5th s of the late James Drake-Brock-man, Esq. of Beechbrook, Kent. *Hythe*  
 Brooke, Lord. S of the Earl of Warwick. *Warwickshire, S*  
 Brooke, Sir Arthur Brinley, Bart. *Fermanagh*  
 Brown, Lord. Eld s of the Marq of Exeter. *Lincolnshire, S*  
 Brown, Humphry. S of Humphry Brown, Esq. of Tewkesbury. *Tewkesbury*  
 Brown, Wm. S of the late Alex Brown, of Baltimore, United States. *Lancashire, S*  
 Browne, Robt Dillon. Is descended from the Kilmaine family. *Mayo*  
 Bruce, Chas Lennox Cumming. 2d s of Sir A. P. G. Cumming. *Elginshire, &c*  
 Bruce, Lord Ern of Angus Chas Brudenell. 2d s of the Marq of Ailesbury. *Marlborough*  
 Bruce, Hen. Is Col of the Carlow Militia. *Carlow co*  
 Bruges, Wm Head Ludlow. Recorder of Dovizes. Eld and only surviving e of the late Benn Pennell Ludlow, Esq. of Molkham, Wilt. *Devizes*  
 Buck, Lewis Wm. Eld s of Geo Stueley Buck, Esq. *Devon, N*  
 Buckle, Sir Rich Buckle, Bart. Joynt-Lieut of Anglesea. *Anglesea*  
 Buller, Rt Hon Chas. Judge Advocate-General. *Leisland*  
 Buller, Sir John Bulter, Yard. Bart. Grands of Mr Justice Buller. *Devonshire, S*  
 Bunbury, Edw Herbert. A barrister-at-law. 2d son of Sir Hen Bunbury, Bart. of Great Barton, Suffolk. *Bury St Edmund's*  
 Burton, Lord. Eld s of the Marq of Exeter. *Lincolnshire, S*  
 Burke, Thomas John. Eld s of Sir John Burke, Bart. of Marble Hill, co Galway. *Galway co*  
 Burrell, Sir Chas Merril, Bart. An East India Proprietor. *Shoreham*  
 Burroughes, Han Negus. Eld s of the late J Burkin Burroughes, Esq. of Burlington. *Norfolk, E*  
 Busfield, Wm. Eld s of the late J A Cusfield, Esq. of Myrtle Grove. *Bradford*  
 Butler, Piero Somersel. Eld s of Col the Hon Piers Butler. *Kilkenny co*  
 Buxton, Sir Edw North, Bart. Eld s of the late Sir Thos Fowell Buxton, Bart. *Essex, S*  
 Byng, Rt Hon Geo Stevens. Eld s of Lord Stratford. *Chatham*  
 Cabell, Benj Bond. *Boston*  
 Callaghan, Daniel. S of an eminent provision merchant in Cork. *Cork*  
 Campbell, Hon Wm Fred. Eld s of Lord Campbell and Lady Stratheden. *Cambridge bor*  
 Cardwell, Edw. S of John Cardwell, Esq. late of Liverpool, merchant. *Liverpool*  
 Cardwell, Wm Hon Polk. Deputy-Lieut of Cornwall. 2d surviving s of the late Hight Hon Reginald Pole Carew. *Cornwall, E*  
 Carter, John Bonham. A magistrate for Hants. S of the late John Bonham Carter, Esq. M.P. for Portsmouth. *Winchester*  
 Castlreagh, Rt Hon Visct. Eld s of the Marq of Londonderry. *Down co*  
 Caulfield, Hon Hon Hen. 2d s of the 1st Earl of Charlemont. *Armagh co*  
 Cavendish, Hon Chas Compton. Youngest e of the late, and uncle of the present Earl of Burlington. *Bucks*  
 Cavendish, Hon Geo Hen. 2d s of the Hon Wm Cavendish. *Derbyshire, N*  
 Cavendish, Wm Geo. Only s of the Hon Chas Compton Cavendish, M.P. for Bucks. *Peter-borough*  
 Cayley, Edw Stillingfleet. *Yorkshire, N*  
 Chandos, Marq of. Eld s of the Duke of Buckingham and Chandos. *Buckingham bor*  
 Chaplin, Wm Jas. S of Mr Wm Chaplin, of Rochester. *Salisbury*  
 Charteris, Hon Francis Wemyss. Eld s of Lord Elcho. *Haddingtonshire*  
 Chichester, Lord John Ludford. S of 2d Marq of Donegal. *Down*  
 Childers, John Wallbank. A magistrate for the West Rid of Yorkshire. Eld s of the late Col John Wallbank Childers, of Cantley, Yorkshire. *Malton*  
 Cholmeley, Sir Montagu John, Bart. *Lincolnshire, N*  
 Cholmondeley, Hon Hugh. Eld s of Lord Delamere. *Montgomery dist*  
 Christie, Wm Dougal. Eld s of the late Dougal Christie, Esq. *Weymouth*  
 Christie, Robt Adam, F.R.S. S of Philip Dundas, Esq. *Lincolnshire, N*  
 Christie, Sam. 2d s of the late Thomas Christie, Esq. of Broomfield, Essex. *Newcastle-under-Lyme*  
 Clay, Jam. S of James Clay, Esq. a London merchant. *Hull*  
 Clay, Sir Wm Bart. S of the late George Clay, Esq. a merchant and ship-owner in London.  
 Clements, Hon Chas Skeffington. 2d surviving S of the 3d Earl of Leitrim. *Leitrim*  
 Clerk, Rt Hon Sir Geo, Bart. Scottish Advocate. *Dover*  
 Clifford, Hon Morgan. Only s of the late Morgan Morgan-Clifford, Esq. of Porristone, Here-fordshire, Col of the Monmouth Militia. *Hereford*  
 Clive, Hon Bayley. S of the late William Clive, Esq. *Ludlow*  
 Clive, Visct. Doctor of Civil Law. Eld s of the Earl of Powis. *Salop, N*  
 Clive, Rt Hon Robt Hen. 2d S of the 1st Earl of Powis. *Salop, S*  
 Cobbold, John Chevallier. A hanker at Ipswich and Harwich. S of John Cobbold, Esq. a brewer and merchant at Ipswich. *Ipswich*  
 Cochrane, Rich. Is a cottonier in Lancashire. *Yorkshire, W and Stockport*  
 Cochrane, Alex Dundas Ross Wisbart Baillie. Eld s of Admiral Sir Thomas John Cochrane, C.B. *Bridport*  
 Cockburn, Alex Jas Edmund. A Queen's Counsel. *Southampton*  
 Coombs, Thos Somers, Jun. A hanker at Charing-cross. Eld e of Thomas Somers Coombs, Esq. of Thames-Banks, Bucks. *Reading*  
 Codrington, Chris Wm. Nephew of Sir Edward Codrington. *Gloucestershire, E*  
 Coke, Hon Edw Keppel Wentworth. 2d s of the 1st Earl of Leicester. *Norfolk W*  
 Cole, Hon Hen Arthur. 2d s of the 2d Earl of Enniskillen. *Enniskillen*  
 Colebrooke, Sir Thos Edw, Bart. S of the late Hen Colebrooke, Esq. F.R.S. *Taunton*  
 Collins, Hen Beaumont. Magistrate for Hants and Middlesex. Only e of Philip Cole, Esq. many years chairman of the Middlesex Sessions. *Andover*  
 Collins, Wm. Is a tanner. *Warwick*  
 Colville, Chas Robt. Only e of the late Sir Chas H Colville, Knt. *Derbyshire, S*  
 Compton, Hen Combe. *Hants, S*  
 Conolly, Edw Michael, D.C.L. Eld e of the Hon Adm Sir Thos Pakenham. *Donegal*  
 Conyngham, Lord Albert Denison, K.C.H. 2d e of the 1st Marq Conyngham. *Canterbury*  
 Coope, Octavius Edw. S of the late John Coope, Esq. *Yarmouth*  
 Copeland, Wm Taylor. Only e of the late Wm Copeland, Esq. *Stoke-upon-Trent*  
 Corbally, Mathew Elias. Only e of the late Elias Corbally, Esq. of Corbalt, Meath.  
 Corry, Rt Hon Hen Thos Cowry. 2d s of the Earl of Belmore. *Tyrone*  
 Cotton, Hon Wellington Hen Stapleton. Eld e of Lord Combermere. *Carrikerferys*  
 Courtenay, Visct. Eld s of the Earl of Devon. Is a Dep-Lieut of Devon. *Devonshire, S*  
 Cowan, Chas. Eld s of Alex Cowan, Esq. of Edinburgh, merchant. *Edinburgh*  
 Cowper, Hon Wm Francis. A Lieut in the Royal Horse Guards. 2d s of 5th Earl Cowper and nephew of Lord Melbourne. *Harford*  
 Craig, Wm Gibson. Eld s of Sir Jas Gibson Craig, Bart. *Edinburgh*  
 Crawford, Wm Sharman. *Rochdale*  
 Cripps, Wm. S of Joseph Cripps, Esq. late member for the bor. *Cirencester*  
 Cubitt, Wm. The eminent builder. *Andover*  
 Currie, Hen. 2d s of the late Wm Currie, Esq. East Horsley Park, Surrey. *Guildford*  
 Currie, Hen. 2d s of the late Isaac Currie, Esq. of Bush Hill, Middlesex. *Northampton*  
 Curteis, Herbert Barrett. Eld s of the late Edw Jer Curteis, Esq. of Windmill Hill. *Rye*  
 Dalrymple, John. Eld s of North Dalrymple, Esq. *Wigtonshire*  
 Dams, Rt Hon Geo Lionel Dawson. Br of the Earl of Portarlington. *Dorchester*  
 Dashwood, Geo Hsn. Eld s of Sir John Dashwood King, Bart. *Weycombe*  
 Davidson, Sir Hen Robt Ferguson, Bart. S of the late Robt Ferguson, Esq. M.P. *Haddington dist*  
 Davies, David Arthur Saunders. S of D Davies, Esq. M.D. *Carmarthenshire*  
 Dawson, Hon Thos Vesey. S of 2d Lord Cremore. *Monaghan*  
 Deedes, Wm. Eld s of the late Wm Deedes, Esq. of Sandring Park, Kent. *Kent, E*  
 Deering, John Peter. A Deputy-Lieut, and Magistrate for Bucks. *Aylesbury*  
 Denison, John Evelyn. A distant relation of the Member for Surrey. *Malton*  
 Denison, Wm Jos. Only s of Jos Denison, Esq. a London Banker. *Surrey, W*  
 Devereux, John Thos. *Wexford bor*  
 D'Eyncourt, Rt Hon Charles Tennyson. S of the late Geo Tennyson, Esq. *Lambeth*  
 Diarmid, Ben. Eld s of I Diarmid, Esq. D.C.L. *Bucks*  
 Divett, Edw. *Exeter*  
 Dixon, John. Eld s of the late Peter Dixon, Esq. of Whitehaven. *Carlisle*  
 Dodd, Geo, F.S.A. S of the late Geo Dodd, Esq. of Montagu-square. *Maidstone*  
 Douglas, Sir Chas Eurwiche, C.M.G. *Warwick*  
 Douglass, John. Eld s of the Duke of Wellington. *Norwich*  
 Drax, John Sam Wanley Sawbridge Erle. S of S E Sawbridge, Esq. *Wareham*  
 Drumlanrig, Visct. Eld s of the Marq of Queensberry. *Dumfriesshire*  
 Drummond, Hen. Eld s of the late Hsn Drummond, Esq. Banker in London. *Surrey, W*  
 Drummond, Hsn Home. S of the late Geo Hsn Drummond, Esq. *Ferish*  
 Duncanson, Sir John Thos. Bart. Major of the 1st Devon Yeomanry. S of the late Admiral Sir John T Duckworth, Bart. *Exeter*  
 Duff, Geo Skene. 2d s of Gen the Hon Sir Alexander Duff. *Elgin dist*  
 Duff, Jas. Eld s of Lieut-Gen the Hon Sir Alexander Duff, G.C.H. *Banffshire*  
 Duke, Sir Jas. S of Mr John Duke, Merchant of Montrose. *Boston*  
 Duncan, Geo. A retired merchant. *Dundee*  
 Duncan, Visct. Eld s of the Earl of Camperdown. *Bath*  
 Duncombe, Hon Arthur. 2d surviving s of 1st Lord Feversham. *East Retford*  
 Duncombe, Hon Octavius. 5th s of the 1st Lord Feversham. *Yorkshire, N Riding*  
 Duncombe, Thos Slingsby. Eld e of Thos Duncombe, Esq. of Copgrove, near Boroughbridge.  
 Duncomb, John. Has been a share-broker since the year 1824. *Oldham*  
 Dundas, Sir David. Eld s of Jas Dundas, Esq. of Ochertrey. *Sutherlandshire*  
 Dundas, Geo. Eld s of Jas Dundas, Esq. of Dundas, Linlithgowshire. *Linlithgowshire*  
 Dundas, Jas Whitley Duane. S of James Duane, Esq. M.D. of Calcutta. *Greenwich*  
 Duple, Caledon Geo. Eld s of J Duple, Esq. *Buckinghamshire*  
 East, Sir Jas Bulter, Bart. D.C.L. A barrister. Eld s of the late Right Hon Sir Edw Hyde East, Bart. *Winchester*  
 Ebrington, Visct. Eld s of the Earl Fortescue. *Plymouth*  
 Edwards, Hen. Eld surviving s of Hen Leon Edwards, Esq. of Eyo Nost. *Halifax*  
 Egerton, Sir Philip De Maltre Grey, Bart. *Cheshire, S*  
 Egerton, Wm Tatton. S of Wilbraham Egerton, Esq. *Cheshire, N*  
 Ellice, Rt Hon Geo. A West India and Canadian Proprietor. *Coventry*  
 Ellice Edw, Jun. S of the Rt Hon Edw Ellice, M.P. for Coventry. *St. Andrew's dist*  
 Elliot, Hon John Edm. 3d e of the Earl of Minto. *Roxburghshire*  
 Emlyn, Visct. Eld s of the Earl Cawdor. *Pembrokeshire*



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

- Euston, Earl of. Eld s of the Duke of Grafton. *Thetford*  
 Evans, John. A barrister: goes the Oxford Circuit. *Haverfordwest*  
 Evans, Sir De Laoy, K.C.B. S of John Evans, Esq, of Milwain. *Westminster*  
 Evans, Wm. Eld s of Wm Evans, Esq, of Darley. *Derbyshire*  
 Ewart, Wm. S of a merchant and broker at Liverpool. *Dunfermlie*  
 Fagan, Jas. A timber-merchant and shipowner. S of the late Jas Fagan, Esq. *Wexford*  
 Fagan, Wm Trant. Eld s of the late Jas Fagan, Esq, of Cork. *Cork city*  
 Farnham, Edw Basil. Eld s of the late Edw Farnham, Esq, of Quorndon. *Leicestershire, N*  
 Farrer, Jas. Eld s of Jas Wm Farrer, Esq, of Ingleborough, Yorkshire. *Durham, S*  
 Fawcett, Edw. S of a Surgeon, Evesham, afterwards a cotton-weaver in Norwich. *Oldham*  
 Fergus, John. S of — Fergus, Esq, for many years Provost of Kirkcaldy. *Fifehire*  
 Ferguson, Sir Robt Alex. Bart. Lord-Lieut of Londonderry. *Londonderry city*  
 Ferguson, Robt. S of the late Sir Ronald Ferguson. *Kirkcaldy dist*  
 Ffolliott, John. Is descended from a common ancestor with the Ffolliotts of Worcesterhire. *Sligo*  
 Filmer, Sir Edm. Bart. S of the late Capt Filmer. *Kent, W*  
 Fitz-Patrick, John Wilson. Representative of a younger branch of the Fitz-Patricks, Earls of Ossory, whose title is extinct. *Queen's co*  
 Fitz-Roy, Horatio. S of 2d Bar Southampton. *Leves*  
 Fitz-William, Hon Geo Westworth. 2d s of 2d Earl Fitz-William. *Peterborough*  
 Floyer John. S of the Rev Wm Floyer. *Dorsetshire*  
 Foley, John Hodgkiss Hodgkiss. 2d s of the late Hon Edw Foley. *Worcestershire, E*  
 Forbes, Wm. *Stirlingshire*  
 Forbes, Alex Dingwall. Commander in the Navy. S of Wm Dingwall Fordyce, Esq, of Edinburgh. *Aberdeenshire, Aberdeen*  
 Forrester, Hon Geo Cecil Wd. Bar and heir presumptive to Lord Forester. *Wenlock*  
 Forster, Matthew. A merchant, shipowner, and underwriter in London. *Berwick-on-Tweed*  
 Fortescue, Chichester Samuel. Youngest s of the late Lieut-Col Chichester Fortescue, of Dromiskien, co Louth. *Louth*  
 Fortescue, Hon John Wm 2d s of 2d Earl Fortescue. *Barnstaple*  
 Fox, Rich Maxwell. Eld s of the late Rev Fras Fox. *Longford*  
 Fox, Sackville Walter Lane. 3d s of Jas Lane Fox, Esq. *Beverley*  
 Fox, Wm John. S of a Surgeon, Evesham, afterwards a cotton-weaver in Norwich. *Oldham*  
 Freeston, Wm Lockyer. 2d s of Edw Freeston, Esq. *co Waterford, Weymouth*  
 French, Fitzstephen. Br of Lord De Freyne. *Roscommon co*  
 Frewen, Chas Hayt. 2d s of the late John Frewen Turner, Esq. *Sussex, E*  
 Fuller, Aug Elliot. Eld s of John Trayton Fuller, Esq. *Sussex, E*  
 Galloway, Visct. 4th s of the late Sir John Galloway, Bart. *Irish Peer*  
 Gardner, Rich. Eld s of Robt Gardner, Esq. *Leicester*  
 Gaskell, Jas Milnes. Only s of the late member for Maldon of that name. *Wenlock*  
 Gibson, Rt Hon Thos Milner. Only s of Major Thos Milner Gibson. *Manchester*  
 Gladstone, Rt Hon Wm Ewart. 3d s of the late Sir John Gladstone, Bart. *Oxford Univ*  
 Grace, Geo Carr. S of the late Sir John Carr, Bart. *Yorkshire, York*  
 Goddard, Ambrose Lethbridge. A magistrate for Wilts. Eld s of Ambrose Goddard, Esq, of Swindon, Wilts. *Cricklade*  
 Godson, Rich. 5th s of the late W Godson, Esq. *Kidderminster*  
 Goodrich, Edw 5th s of the late Sir T Goodrich, Bart. *Suffolk, E*  
 Gordon, Hon Wm. A Rear-Admiral of the Blue. Br of the Earl of Aberdeen. *Aberdeenshire*  
 Gore, Wm Ormsby. S of the late Wm Gore, Esq. *Salop, N*  
 Gore, Wm Rich Ormsby. 2d s of the member for Salop North. *Sligo*  
 Goring, Chas. *Shoreham*  
 Goulburn, Rt Hon Geo 1st s of Munbee Goulburn, Esq, of Portland-place. *Cambridge Univ*  
 Gower, Hon Edw Fred Leveson. 2d s of the late Earl Granville. *Derby*  
 Grace, Oliver Dowell John. A magistrate for Roscommon. Only s of the late John Grace, Esq, of Mantina, co Roscommon. *Roscommon co*  
 Graham, Rt Hon Sir Jas Robt Geo, Bart. Cousin to the Earl of Galloway, and to Visct Carlisle. *Edin*  
 Granby, Marq. of. Eld surviving s of the Duke of Rutland. *Stamford*  
 Granger, Thos Colpitts. A barrister. *Durham city*  
 Grattan, Hon. S of the celebrated Hon Grattan. *Meath*  
 Greenall, Gilbert. S of Edw Greenall, Esq. *Warrington*  
 Greene, John. Eld s of the late Geoffrey Greene, Esq, of Greenstown, Kilkenny. *Kilkenny co*  
 Greene, Thos. S of the late Thos Greene, Esq, of Slys. *Lancaster*  
 Gregson, Samuel. Head of the firm of Gregson and Co, Austin Friars. *Lancaster*  
 Grenfell, Chas Pascoe. S of the late Pascoe Grenfell, Esq, M.P. for Preston. *Sandwich*  
 Grenfell, Chas Wm. Eld s of Chas Pascoe Grenfell, Esq, M.P. for Preston. *Sandwich*  
 Grey, Ralph Wm. S of the late Ralph Wm Grey, Esq. *Warrington*  
 Grey, Rt Hon Sir Geo, Bart. S of the late Sir G Grey. *Northumberland, N*  
 Grogan, Edw. Eld s of the late John Grogan, Esq, barrister. *Dublin city*  
 Grosvenor, Earl. Eld s of the Marq of Westminster. *Cheshire*  
 Grosvenor, Right Hon. Lord Robt. 3d s of the late Marq of Westminster. *Middlesex*  
 Guest, Sir John Jos. Bart. An ironmaster, at Mather Tythly. *Merthyr Tydfil*  
 Guinness, Rich Samuel. 2d s of the late Richard Guinness, Esq. *Kinsale*  
 Gwyn, Howell. Deputy-Lieut of Glamorganshire. S of the late Wm Gwyn, Esq, of Neath, Glamorganshire. *Penryn and Falmouth*  
 Hagitt, Francis. S of the late Rev Francis Hagitt, D.D., Prebendary of Durham, and Rector of Ninnham-Courtenay, Oxfordshire. *Hove*  
 Hale, Robert Blagden. Son of R H B Hale, Esq. *Gloucestershire, W*  
 Halford, Sir Hen, Bart. S of the late Sir H Halford, Bart, of Wistow Hall, co of Leicester. *Leicestershire, S*  
 Hall, Sir Benj, Bart. Eld s of the late Benj Hall, Esq, some time M.P. for Glamorganshire. *Marylebone*  
 Hall, John. Became Lieut-Col 1st Life Guards, in Dec. 1837. *Buckingham bar*  
 Hallyburton, Lord John Fred Gordon, G.C.H. S of the Marq of Huntly. *Forfarshire*  
 Halsey, Thos Flumer. Eld s of Joseph Thompson Whately, Esq. *Herts*  
 Hamilton, Lord Claude. Br of the Marq of Hamilton. *Tyne*  
 Hamilton, Geo Alex. Eld s of the late Rev Geo Hamilton. *Dublin University*  
 Hamilton, Jas Hans. S of the late Hans Hamilton, Esq. *Dublin co*  
 Hammer, Sir John, Bart. His ancestor, Sir Thos Hammer, was Speaker in 1713. *Flint dist*  
 Harcourt, Geo Granville Vernon. Eld s of the Archbp of York. *Oxfordshire*  
 Hardcastle, Sir John Jos. Bart. Eld s of the late Sir John Hardcastle, Bart. *Colchester*  
 Harrie, Hon Edw Alfred John. 2d s of the late Sir Alfred John Harrie, Bart. *Colchester*  
 Hastie, Alexander. S of the late Robert Hastie, Esq, merchant of Glasgow. *Glasgow*  
 Hastie, Archibald. An East India Agent. S of W Hastie, Esq. *Paisley*  
 Hay, Lord John, C.B. 3d s of the late Nathaniel Heywood, Esq, banker. *Lancashire, N*  
 Hayes, Sir Edm Samuel, Bart. Only s of the late Bart. *Donagel*  
 Hayter, Wm Goodenough. A barrister. S of John Hayter, Esq. *Wells*  
 Headlam, Thos Emerson. Eld s of the Rev John Headlam. *Newcastle-on-Tyne*  
 Heald, James. 2d s of the late Jas Heald, Esq. *Stockport*  
 Heathcoat, John. Proprietor of the lace manufactory at Tiverton. *Tiverton*  
 Heathcote, Sir Wm, Bart. Only s of the Rev Wm Heathcote. *Hants, N*  
 Heathcote, Gilbert John. Eld s of Sir G Heathcote, Bart. *Rutlandshire*  
 Heneage, Edw. 2d s of the late Geo Robt Heneage, Esq. *Great Grimsby*  
 Heneage, Geo Heneage Walker. Eld s of the Rev Geo Wyde. *Devizes*  
 Henley, Joseph. S of the late Geo Henley, Esq. *Oxfordshire*  
 Herbert, Hon Arthur. Only s of the late Chas John Herbert, Esq. *Kerry co*  
 Herbert, Right Hon Sydney. Half-br of the Earl of Pembroke. *Wilts, S*  
 Herries, Right Hon John Chas. Eld s of the late Col Herries. *Stamford*  
 Hervey, Lord Alfred. S of the late Marq of Bristol. *Brighton*  
 Heywood, Jas, F.R.S. 5th s of the late Nathaniel Heywood, Esq, banker. *Lancashire, N*  
 Hildyard, Robt Chas. 3d s of the late Rev Wm Hildyard. *Wiltshire*  
 Hildyard, Thos Blackborne Thornton. S of the late Col Hildyard. *Nottinghamshire, S*  
 Hill, Lord Arthur Edw. S of 3d Marq of Downshire. *Co. Down*  
 Hill, Rt Hon Lord Arthur Marcus Cecil. 3d s of the late Marq of Downshire. *Evesham*  
 Hindley, Chas. *Warrington*  
 Hodges, Thos Law. Eld s of the late Thos Hallett Hodges, Esq, of Hemsted, Kent. *Kent, W*  
 Hodges, Thos Twicken. Only son of Thos Law Hodges, Esq, of Hemsted, Kent. *Rochester*  
 Hodgson, Wm Nicholson. Eld s of the late Wm Hodgson, Esq. *Carlisle*  
 Hogg, Sir Jas Weir, Bart. A barrister. S of Wm Hogg, Esq. *Honiton*  
 Holland, Robert John. S of the late Wm Holland, Esq, of Grovesend-place. *Hastings*  
 Hood, Sir Alex, Bart. Only s of the late Capt Alex Hood, R.N. *Somersetshire, W*  
 Hope, Alex Jas Beresford. Youngest son of the late T Hope, Esq. *Maidstone*  
 Hope, Hen Thos. Eld s of the late Thos Hope, Esq, of Deepdene, Surrey. *Gloucester city*  
 Hope, Sir John, Bart. S of Sir John Hope, Bart. *Edinburgh co*  
 Hornby, John. Youngest s of the late John Hornby, Esq. *Blackburn*  
 Horsman, Edw. Nephew to 7th Earl of Stair. *Cockermouth*  
 Hotham, Lord. An Irish peer. A Col in the army. *Yorkshire, E*  
 Housdworth, Thos. A merchant and a cotton spinner at Manchester, and at Rochester, Staffordshire. *Staffordshire*  
 Howard, Hon Chas Wentworth. S of 6th Earl of Carlisle. *Cumberland, E*  
 Howard, Hon Edw Geo Granville. 8th s of the Earl of Carlisle. *Morpeth*  
 Howard, Hon Jas Kenneth. Youngest s of the Earl of Suffolk and Berks. *Malmesbury*  
 Hudson, Geo. Lord Mayor of the city of York. *Sunderland*  
 Hughes, Wm Bulkeley. Eld s of the late Sir W B Hughes. *Carnarvon dist*  
 Hughes, Joseph, F.R.S., F.R.A.S. Deputy Lieut of the co of Middlesex. *Montrose dist*  
 Humphrey, John. A hardware and merchant in the Borough. *Southwark*  
 Hutt, Wm. *Gateshead*  
 Ingestre, Visct, C.B. A Capt in the Navy. Eld surviving s of the Earl Talbot, and br-in-law of the Marq of Lothian. *Staffordshire, S*  
 Inglis, Sir Robt Harry, Bart, D.C.L. A barrister. *Oxford University*  
 Inland, Thos Jas. Only son of Thos Inland, Esq. *Batley*  
 Jackson, Wm. A Cheshire magistrate. S of the late Peter Jackson, Esq, of Warrington. *Lancashire, surgeon, Newcastle-under-Lyme*  
 Jermy, Earl. Eld s of the Marq of Bristol. *Bury St Edmund's*  
 Jarvis, Sir John. Attorney-Gen. 2d s of Thos Jarvis, Esq, Q.C. *Chester*  
 Jarvis, John. S of Sir John Jarvis, the Attorney-General. *Horsham*  
 Jocelyn, Visct. Eld s of the Earl of Roden. *Lynn Regis*  
 Johnstone, Sir John Vanden Bempde, Bart. *Scarborough*  
 Jolliffe, Sir Wm Geo Hynton, Bart. S of the Rev Wm Jolliffe. *Petersfield*  
 Jones, Theobald. S of the Rev Jas Jones, Rector of Urney, Strabane. *Londonderry co*  
 Jones, Sir Willoughby, Bart. 2d s of Sir John Thos Jones, K.C.B. *Culterham*  
 Keating, Robt. A Repealer. A member of the "Old Ireland party." *Waterford co*  
 Keogh, Wm. Eld s of Wm Keogh, Esq. *Athlone*  
 Keppel, Hon Geo Thos 2d s of the 4th Earl of Albemarle. *Lymington*  
 Kerr, Rich 2d s of David Kerr, Esq. *Dumpatrick*  
 Kerrison, Sir Edw, G.C.H., K.C.B. A Lieut-Gen in the army. *Eye*  
 Kildare, Marq. of. Eld s of the Duke of Leinster. *Kildare*  
 King, Hon Peter John Locke. 2d s of 7th Lord King. *Surrey, E*  
 Knight, Fred Winn. Eld s of John Knight, Esq. *Worcestershire, W*  
 Knollys, Sir John, Bart. *Northamptonshire, S*  
 Knott, Brownlow Wm. 3d s of Lieut-Col Thos Knox, of the 1st Foot Guards. *Marlow*  
 Labouchere, Rt Hon Henry. President of the Board of Trade. S of the late P C Labouchere, Esq, of Highlands, Essex. *Taunton*  
 Lacy, Hon Chas. S of Jas Lacy, Esq, of Salisbury. *Bodmin*  
 Laing, John. S of the late John Laing, Esq. *Orkney city*  
 Lascelles, Hon Edw. 3d surviving s of the 2d Earl of Harewood. *Ripon*  
 Lascelles, Rt Hon Wm Saunders Schreiff. S of 2d Earl of Harewood. *Knaresborough*  
 Law, Hon Chas Ewan. 2d s of 1st Lord Ellenborough. *Cambridge University*  
 Lawless, Hon Cecil John. Youngest s of the 2d Bar Cloncurry. *Clonmel*  
 Leake, Rt Hon Chas Shaw. S of the late Chas Shaw, Esq. *Hampshire, N*  
 Lemon, Sir Chas Bt. S of the 1st Bt. *Cornwall, W*  
 Leonard, Thos Barrett. Eld s of Sir Thos Barrett Leonard, Bt, of Boll House, Essex. *Maldon*  
 Lennox, Lord Arthur. 7th s of the 4th Duke of Richmond. *Yarmouth*  
 Lewis, Lord John Chas Gordon. 2d s of the 5th Duke of Richmond. *Chichester*  
 Leslie, Chas Powell. S of the late Chas P Leslie, Esq. *Monaghan*  
 Lewis, Geo Cornewall. Eld son of the Rt Hon Sir Thos Frankland Lewis, Bt, M.P. *Herefordshire*  
 Lewis, Rt Hon Sir Thos Frankland, Bt. Only s of the late John Lewis, Esq, of Harpton Court, Radnorshire. *Radnor dist*  
 Lincoln, Earl of. Eld s of the Duke of Newcastle. *Falkirk dist*  
 Lindsay, Hon Jas. 2d s of the 7th Earl of Balcarres. *Wigan*  
 Littleton, Hon Chas Edw Richard. Eld s of Lord Hatherston. *Walsall*  
 Loch, Jas, F.R.S., F.S.S., and F.Z.S. An English barrister and Scottish Advocate. Eld s of Geo Loch, Esq, of Drylaw, co of Edinburgh. *Wick dist*  
 Locke, Jos, F.R.S. A civil engineer. *Honiton*  
 Lockhart, Allan Elliott. S of Wm Elliott Lockhart, Esq. *Selkirkshire*  
 Lockhart, Wm. Is descended from a family long settled in Lanarkshire. *Lanarkshire*  
 Long, Walter. Eld s of the late Geo Long, Esq, of Ross-shire. *Wigan, N*  
 Lowther, Hon Chas. Eld s of Col the Hon Hen Cecil Lowther. *Cumberland, W*  
 Lowther, Hon Hen Cecil. 2d s of the 1st Earl of Lonsdale. *Westmorland*  
 Lushington, Chas. Youngest s of the late Sir Stephen Lushington, Bt, of South Hill Park, Berks. *Westminster*  
 Lygon, Hon Hen Beauchamp. Br of the Earl of Beauchamp. *Worcestershire, W*  
 M'Culloch, Wm Bunbury. 2d s of John M'Culloch, Esq, of Drumcar, co Louth. *Cantlow, co*  
 Mac Gregor, John. Eld son of David Mac Gregor, Esq, of Drynle, Ross-shire. *Glasgow*  
 Mackenzie, Wm Forbes. Eld s of the late Colin Mackenzie, Esq, of Portmore. *Peebles-shire*  
 Macmillan, Wm Alexander. Head of the Clan Macmillan. *Lynnington*  
 Macnaghten, Sir Edmund Chas Workman, Bt. Elds of the late Sir Francis Workman Macnaghten, Bt, a Judge of Madras. *Antrim*  
 Macnamara, Wm Nugent. S of the late Francis Macnamara, of Doolen. *Clare co*  
 McNeill Duncan. 2d s of John McNeill, Esq, of Colonsay, co Argyll. *Argyllshire*  
 McTear, Sir John, Bart. A native of the district, and a London merchant. *Wigton dist*  
 McTavish Chas Carroll. Declared that "although he was an American by birth, he was an Irishman by descent and at heart." *Dundalk*  
 Magan, Wm Henry. Eld s of the late Wm Hen Magan, Esq, of Clonsarl. *Westmeath*  
 Maher, Nicholas. S of Thos Maher, Esq, a medical practitioner in the city of Cashel. *Tipperry*  
 Mahon, Lord. Only s of Earl Stanhope. *Hertford bar*  
 Mahon, Jas Patrick O'Gorman, commonly called "The O'Gorman Mahon." Eld s and heir of the late Patrick Mahon, commonly called "Padraiguidh Mac-Mathgamhna." *Ennis*  
 Maitland, Thos. A Scottish barrister. S of the late Adam Maitland, Esq, of Dundrennan Abbey, Kirkcubrightshire. *Kirkcubrightshire*  
 Mangles, Ross Donnelly. S of the late J Mangles, Esq. *Guildford*  
 Manners, Lord Chas Somerset, K.C.B. Br of the Duke of Rutland. *Leicestershire, N*  
 Manners, Lord Geo John. Youngest s of the 5th Duke of Rutland. *Cambridgehire*  
 March, Earl of. Eld s of the Duke of Richmond. *Sussex, W*  
 Marshall, Jas Geo. 3d s of the late John Marshall, Esq. *Worcestershire, S*  
 Marshall, Wm. Eld s of the late John Marshall, Esq, of Headingly, in the co of York, an extensive linen manufacturer at Leeds and Shrewsbury. *Cumberland, E*  
 Martin, Chas Wykeham. A Deputy-Lieut of Hants. S of Flenes Wykeham, Esq, who assumed for self and issue the name of Martin, on succeeding to the estates of General Martin, in 1830. *Wight*  
 Martin, John. A banker. S of the late J Martin, Esq. *Teekesbury*  
 Martin, Sam. Was called to the Bar at the Middle Temple in 1830. *Pontefract*  
 Masterman, John. Is a member of the firm of Masterman, Peters, Mildred and Co, London, bankers. *London*  
 Matheson, Alex. A retired merchant. Eld s of the late John Matheson, Esq, of Attadale, Ross-shire. *Retired dist*  
 Matheson, Jas, F.R.S. S of Donald Matheson, Esq, chief of that name. *Ross and Cromarty*  
 Matheson, Thos. A Lieut-Col in the Army. S of Donald Matheson, Esq. *Ashburton*  
 Maule, Rt Hon Fox, Lord Rector of Glasgow Univ. Eld of Lord Panmure. *Perth*  
 Manners, Col Thos Phillip. Col of the Nottingham Militia. *Northamptonshire, N*  
 Maxwell, Hon Jas Pierce. 3d s of 6th Lord Farnham. *Cavan*  
 Meagher, Thos. An Alderman of the city of Waterford. *Waterford city*  
 Melgund, Visct. Eld s of the Earl of Minto. *Glenock*  
 Meux, Sir Hen, Bart. Eld s of the late Sir Hen Meux, Bart, the well-known London brewer. *Hartfordshire*  
 Miles, Phillip Wm Skinner. S of P J Miles, Esq, late M.P. for Bristol. *Bristol*  
 Miles, Wm. S of P J Miles, Esq. *Somerset, E*  
 Milnes, Rich Monckton. S of R P Milnes, Esq. *Pontefract*  
 Mitchell, Sir John. Eld s of the late Sir John Mitchell, Esq. *Wicklow co*  
 Mitchell, Thos Alex. One of the Committee of Management of Lloyd's Shipping Register. *Bridport*  
 Moffat, Geo. A partner in the house of Moffat and Co, Tea Agents and Brokers, 28, Fenchurch-street, and 11, Mincing-lane. *Dartmouth*  
 Moleworth, S of the late Sir Arcot Omry Moleworth, Bart. *Southwark*  
 Monnell, Wm. Eld s of the late Wm Monnell, of Tervoe, county Limerick. *Limerick co*  
 Moody, Chas Aaron. S of the late Wm Aaron Moody, Esq. *Somersetshire, W*  
 Moore, Geo Hen S of the late Geo Moore, Esq, of Moore Hall, co Mayo. *Mayo*  
 Morgan, Chas Octavius Swinnerton. Younger br of Sir Chas Morgan, Bart. *Monmouthshire*  
 Morgan, Hamilton. S of the late Geo Morgan, Esq. *Wexford co*  
 Morison, Wm. 2d son of Jas Morison, Esq, of Greenfield, Clackmannanshire. *Clackmannan and Kinross*  
 Morpeth, Rt Hon Visct. Eld s of the Earl of Carlisle. *Yorkshire, W*  
 Morris, David. Eld s of the late Sir David Morris, Esq, a banker at Carmarthen, and a magistrate for the county of Carmarthen dist. *Carmarthen dist*  
 Mostyn, Hon Edw Mostyn Lloyd. Eld s of Lord Mostyn. *Flintshire*  
 Mowatt, Francis. S of the late Capt Jas Ryder Mowatt, of Eastbourne, Sussex. *Penryn and Falmouth*  
 Mundy, Edw Miller. S of the late Edw Miller Mundy, Esq, whose father represented Derbyshire for 40 years. *Derbyshire, S*



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

**Milgrave, Earl.** Only son of the Marquis of Normanby. *Scarborough*  
**Munz, Geo Fred.** Merchant, metal-roller, &c. S of a German merchant, of great respectability who settled in Birmingham in the year 1783. *Birmingham*  
**Munz, Wm. S.** Col Wm Mure, Vice-Lieut. of Renfrewshire. *Renfrewshire*  
**Munz, John.** Son of the late John Munz Esq. of Gloucester-place. *Chippendale*  
**Neale, Jos. F.S.A.** F.L.S. Eids of the late Jos Neale, of Gloucester-place. *Chippendale*  
**Newdegate, Chas Newdegate.** S of the late Chas Newdegate Newdegate, Esq. of Harefield Place, Middlesex. *Warwickshire, N*  
**Newport, Visct.** Eidgest s of the Earl of Bradford. *Shropshire, N*  
**Newry and Moore, Visct.** Eids of the Earl of Kilmory. *Newry*  
**Nicholl, Right Hon John Ntlyd, D.C.L.** S of the Rt Hon Sir John Nicholl. *Cardiff dist.*  
**Noel, Hon Gerard Jas.** 2d s of 1st Earl of Gainsborough. *Rutlandshire*  
**Norrey, Lord.** Eids of the Earl of Abingdon. *Oxfordshire*  
**Norrey, Sir Chas Denham Orlando Jephson, Bart.** S of Col Jephson, formerly M.P. for Malton. *Malton*  
**Northland, Visct.** Eids of the Earl of Ranfurly. *Dunannon*  
**Ngent, Lord, G.C.M.G.** An Irish Peer. Uncle to the 2d Duke of Buckingham. *Aylesbury*  
**Ngent, Sir Percy Fitz-Gerald, Bart.** Eids of Thomas Fitz-Gerald, Esq., Commander, R.N. *Westmeath*  
**O'Brien, John.** S of the late Jas O'Brien, Esq. of Limerick. *Limerick city*  
**O'Brien, Sir Lancelot, Bart.** Eids of the late Sir Edward O'Brien, Bart. *Clare*  
**O'Brien, Timothy.** An Alderman of Dublin, and President of the Court of Conscience of that city, of which he has been Lord Mayor. *Cashel*  
**O'Brien, Wm Smith.** A magistrate for the co of Limerick. 21 s of the late Sir Edw O'Brien, Bart. of Dromoland, Co. Clare. *Limerick co*  
**O'Connell, Daniel.** 4th s of the late Daniel O'Connell, Esq. *Waterford city*  
**O'Connell, John.** 3d s of the late Daniel O'Connell, Esq. *Kilkenny city, and Limerick city*  
**O'Connell, Maurice.** Eids of the late Daniel O'Connell, Esq. *Tralee*  
**O'Connell, Morgan John.** Eids of John O'Connell, Esq. of Grena. *Kerry*  
**O'Connell, Robert.** Eids of John O'Connell, Esq. of Grena. *Kerry*  
**O'Connor, Ralph Bernal.** Eids of Ralph Bernal, Esq., M.P. for Rochester, and formerly Chairman of Committees. *Middlesex*  
**Osulston, Lord.** Only s of the Earl of Tankerville. *Northumberland, N*  
**Oswald, Alexander.** S of the late R Oswald, Esq. *Ayrshire*  
**Owen, Sir John, Bart.** Eids of Jos Lord, Esq. *Pembroke dist*  
**Packer, Chas.** S of D S Dingle, Esq. *Middlesex*  
**Paget, Lord Alfred Hen.** 4th s of the 1st Marq of Anglesey. *Lichfield*  
**Paget, Lord Clarence Edw.** S of the Marq of Anglesey. *Sandwich*  
**Paget, Lord Geo Augustus Fred.** 5th s of the 1st Marq of Anglesey. *Beaumaris dist*  
**Pakington, Sir John Somerset, Bart.** S of Wm Russell, Esq. of Powick Court, Worcester-shire. *Derbyshire*  
**Palmer, Robert.** Eids of the late Sir Palmer, Esq. *Berkshire*  
**Palmer, Roundell.** 2d s of the Rev Wm Jocelyn Palmer, of Mixbury, Oxfordshire. *Plymouth*  
**Palmerston, Rt Hon Visct, G.C.B.** An Irish Peer. *Tiverton*  
**Parker, John.** S of Hugh Parker, Esq. of Tickhill, Doncaster. *Sheffield*  
**Patten, John.** Eids of John Patten, Esq. of Lancashire. *Lancashire*  
**Patten, Esq. of Bank Hall, M.P. Lancashire, N  
**Pattison, Jas.** S of the late Nat M Pattison, Esq. of Conington, Cheshire. *London*  
**Paulet, Lord Wm.** 4th s of the 13th Marq of Winchester. *St. Ives*  
**Pearson, Chas.** Solicitor to the City of London. S of Thos Pearson, Esq., a member of an old-established mercantile firm in London. *Lambeth*  
**Pechell, Geo Rich.** Youngest s of the late Major Gen Sir Thos Brooke Pechell, Bart. *Brighton*  
**Peel, Jonathan.** S of the late and br of the present Sir Robt Peel. *Huntingdon*  
**Peel, Rt Hon Sir Robt, Bart.** *Tamworth*  
**Peel, Rt Hon Wm Yates.** 2d s of the late Sir Robt Peel, Bart. *Tamworth*  
**Pendares, Edw Wm Wynne.** Eids of the late Sir John Pendares, Esq. *Cornwall, W*  
**Pennant, Hon Edw Gordon Douglas.** Br of the 18th Earl of Morton. *Carnarvonshire*  
**Perfect, Robt.** Only s of the late Wm Perfect, Esq. *M.D. Leves*  
**Peto, Sam Morton.** Civil engineer, contractor, and builder. S of the late Hen Peto, Esq. of York-road, Lambeth. *Norwich*  
**Phillips, Geo Rich.** Only s of Sir Geo Phillips, Bart. formerly M.P. for Warwickshire. *Poole*  
**Pigot, Sir John.** Eids of the late Sir G Pigot. *Bridgnorth*  
**Piggott, Francis.** A magistrate of Hants. Eids of Paynton Piggott Stainby Conant, Esq. of Archer Lodge, Hants, and Banbury, Oxfordshire. *Reading*  
**Pilkington, James.** A Magistrate for Lancashire. *Blackburn*  
**Pinney, Wm.** A Director of the East India Co. Only s of John Fred Pinney, Esq. of Somerset-terre, Somersetshire. *Bridgnorth*  
**Plowden, Wm Hen Chicheley, F.R.S.** A Director of the East India Co. S of the late Rich Chicheley Plowden, Esq. many years an East India Director. *Newport, Isle of Wight*  
**Plumtree, John Pemberton.** A Deputy-Lieut of Kent. Eids of the late John Plumtree, Esq. of Freville, and of Nottingham. *Kent, E*  
**Power, Wm Hen.** Eids of the late Thos Power, Esq. of Nantoco. *Cardiganshire*  
**Power, Maurice.** Is descended from the 6th Lord Power, of the co Waterford. *Cork co*  
**Power, Nicholas Maher.** Deputy-Lieut for Waterford. S of Nicholas Power, Esq. of Ballin-akill, co Waterford. *Waterford co*  
**Price, Sir Robt, Bart.** Son of Sir Uvedale Price, the 1st Bart. *Hereford city*  
**Price, Rich. A.** Eids of the late Sir Rich Price, Esq. of the late Sam Price, Esq. of Upper Brook-street, and of Whitton, Middlesex. *Sussex, W*  
**Pryse, Pryse.** Only s of the late E L Loveden Loveden, Esq. of Buscot-park, Farringdon. *Cardigan dist*  
**Pugh, Dav.** S of the late Chas Pugh, Esq. of Perry-hill, Kent. *Montgomery dist*  
**Pusey, Philip, Esq.** S of the late Hen Philip Bouverie. *Berkshire*  
**Raghu, Adm.** *St Alban's*  
**Rawdon, John Dawson.** Lieutenant Colonel in the Guards. *Armagh city*  
**Reid, Col Geo Alex.** Late Colonel in 2nd Life Guards. *Windsor*  
**Rendlesham, Lord.** S of 1st Lord Rendlesham. Is an Irish peer. *Suffolk, E*  
**Repton, John Campbell.** *Berkshire*  
**Repton, Geo Wm John.** Only s of G Repton, Esq. *St Alban's*  
**Reynolds, John.** A draper in the city of Dublin. *Dublin*  
**Riardo, John Lewis.** A merchant engaged largely in railway enterprise. *Stoke-on-Trent*  
**Ricardo, Osman.** Eids of the late David Ricardo, Esq. *Worcester*  
**Rice, Edw Royd.** Is a banker at Dover. *Dover*  
**Rice, Hen.** A Lord of the Treasury. Youngest s of the late Admiral Sir Thos Rich. *Richmond*  
**Richards, Richard.** Eids of the late Lord Chief Baron Richards. *Merionethshire*  
**Roberts, Thos Jas Agar.** Only s of the late Hon Chas Bagynal Agar. *Cornwall, E*  
**Robinson, Geo Rich.** A merchant and ship-owner. *Poole*  
**Roche, Edm Bruce.** S of Edw Roche, Esq. *Cork co*  
**Rodwell, Lancelot.** S and heir of Sir Rodwell, Esq. of Northamptonshire. *S*  
**Romilly, John.** S of the late Sir Sam Romilly. *Devonport*  
**Rothschild, Baron Lionel Nathan De.** A loan contractor and money broker. Eids s of the late Baron Nathan Meyer De Rothschild. *London*  
**Rufford, Francis.** A glass-manufacturer and banker. *Worcestershire*  
**Russell, Hon Edw Southwell.** Eids of the Baroness De Clifford and Capt John Russell, R.N., cousin of Lord John Russell. *Tavistock*  
**Russell, Francis Chas Hastings.** Eids of the late Lord Geo Wm Russell. *Bedfordshire*  
**Russell, Rt Hon Lord John.** 3d and youngest s of the 6th Duke of Bedford. *London*  
**Rutherford, Rt Hon Andrew.** S and heir of Lord Rutherford-Bowles. *Leith dist*  
**Sadler, John.** 3d s of Clement Wm Sadler, Esq. Shrove-hill, co Tipperary. *Carlowbor*  
**St George, Chris.** Eids of the late Arthur St George, Esq. *Galway co*  
**Salvey, Hen.** 3d s of Theophilus Rich Salvey, Esq. of the Lodge, Ludlow. *Ludlow*  
**Sanders, Geo.** S of the late Sam Sanders, Esq. Gainsborough, Lincolnshire. *Walsfield*  
**Schofield, Wm.** A harker. 2d s of the late Wm Schofield, Esq. *Birmingham*  
**Scott, Hon Francis.** S of 4th Lord Polwarth. *Berkshire*  
**Scrope, Geo Poulett, F.R.S., F.G.S., &c.** Second s of J Poulett Thomson, Esq. *Stroud*  
**Scully, Francis.** S of the late Jas Scully, Esq. Killane, co Tipperary. *Tipperary*  
**Seabam, Visct.** S of the 2d Marq of Londonderry. *Durham, N*  
**Sely, Chas.** A merchant. S of the late Mr Sely, a merchant. *Lincoln city*  
**Seymour, Hen.** 4th D.C.L. S of R R Seymour. *Dorsetshire*  
**Seymour, Lord.** Eids of the Duke of Somerset. *Tonnes*  
**Seymour, Sir Horace Beauchamp, K.C.H.** S of Lord Hugh Seymour. *Lisburn*  
**Shafto, Robt Duncombe.** Eids of Robt Edm Duncombe, Shafto, Esq. *Durham, N*  
**Shaw, Rt Hon Fred.** Second s of Col Sir Robt Shaw, Bart. *Dublin University*  
**Shel, Rt Hon Rich.** Late Queen's Counsel. *Dunbarton*  
**Shelburne, Earl of.** Eids of the late Earl of Lansdowne. *Calne*  
**Sherridan, Rich Brinsley.** Grandson of the celebrated man whose name he bears. *Shaftesbury*  
**Shirley, Evelyn John.** *Warwickshire, S***

**Sibthorp, Col Chas Delset Waldo.** A Deputy-Lieut of Lincolnshire. *Lincoln*  
**Sidney, Thos.** A tea-dealer. Son of Wm Sidney, woollen-draper, Stafford. *Stafford*  
**Simeon, John.** Eids of Sir Rich Godin Simeon, Bart. *Isle of Wight*  
**Smith, Robt Aglionby.** Eids of the late Robt Slaney, Esq. *Shrewsbury*  
**Smith, John Abel.** A Metropolitan Lunacy Commissioner. S of J Smith, Esq, banker *Chichester*  
**Smith, John Benj.** A retired merchant. *Stirling dist*  
**Smith, Martin Tucker.** 2d s of the late John Smith, Esq. Kent. *Wyecombe*  
**Smith, Rt Hon Robt Vernon.** S of Robt Smith, Esq. *Northampton*  
**Smollett, Alex.** Eids of the late Henry Ad John Rous Smollett. *Dunbartonshire*  
**Smyth, John Geo.** Eids of the late John Hen Smyth, Esq. *York city*  
**Smyth, Sir Geo Hen, Bart.** *Colchester*  
**Smythe, Hon Geo Aug Fred Percy Sydney.** Eids s of 6th Visct Strangford. *Cantorbury*  
**Somers, John Patrick.** A Deputy-Lieut of the co. *Sligo*  
**Somerset, Rt Hon Lord Granville Chas Hen.** Second s of the late Duke of Beaufort. *Mon-mouthshire*  
**Somerton, Visct.** Eids s of the Earl of Normanton. *Wilton*  
**Somerville, Rt Hon Sir Wm Meredith, Bart.** *Drogheda*  
**Sothern, Thos Hon Sutton.** S of the member for Oxford University. *Wiltshire, N*  
**Spearman, Hen John.** A magistrate for Durham. Eids surviving s of the late Chas Spear-man, Esq. of Thorneley, Durham. *Durham city*  
**Spencer, Rich.** S of Isaac Spencer, Esq. a banker in Birmingham. *Warwickshire, N*  
**Stafford, Aug.** Eids s of Stafford O'Brien, Esq. *Northamptonshire, N*  
**Stanley, Edw.** Eids of the late Geo Ed Stanley, Esq. of Ponsonby Hall. *Cumberland, W*  
**Stanley, Rt Hon Edw John.** Eids of the late Geo Stanley, of Alderley. *Cheshire, N*  
**Stanfield, Wm Rookes Crompton.** Eids s of the late Joshua Crompton, Esq. *Huddersfield*  
**Stanton, Wm Hen.** S of the late Wm Stanton, Esq. woollen-manufacturer. *Stroud*  
**Stanton, Sir Geo Thos, Bart, D.C.L., F.R.S.** S of Sir Geo L Stanton. *Portsmouth*  
**Stephenson, Robt, F.R.S.** Eids of Geo Stephenson, Esq. civil engineer. *Whitby*  
**Strickland, Sir Geo.** A cotton manufacturer. Only s of the late Wm Strutt, Esq. *Derby*  
**Strutt, Rt Hon Edw.** A cotton manufacturer. Only s of the late Wm Strutt, Esq. *Derby*  
**Stuart, Lord Dudley Contts.** S of the 1st Marq of Bute. *Margibone*  
**Stuart, Hen.** Is grands of the 3d Earl of Bute. *Bedford*  
**Stuart, John.** 2d s of Dugald Stuart, Esq. of Balachulish, Appin, Argyshire. *Newark*  
**Stuart, Lord Patrick Jas Herbert Crichton.** Next hr of the Marq of Bute. *Ayr dist*  
**Stuart, Hen Gerard.** S of the late Stuart, Esq. of Critchill, Dorset. *Dorchester*  
**Sutton, John Hen Manners.** Eids s of the late Rev Fred Manners-Sutton, of Kelham, Notts. *Newark*  
**Talbot, Chris Rice Mansel.** Nephew of the 3d Earl of Ilchester. *Glamorganshire*  
**Talbot, John Hyacinth.** 2d s of the late Matthew Talbot, Esq. of Ballynamoy. *New Ross*  
**Talbot, Thos Noon.** 2d s of the late Thos Talbot, Esq. of Ballynamoy. *New Ross*  
**Talbot, Esq. brewer of Reading.** *Reading*  
**Tancred, Hen Wm.** A Queen's Counsel. *Banbury*  
**Taylor, Thos Edw.** Eids s of the Hon and Rev Edw Taylor. *Dublin co*  
**Tenison, Edw King.** Deputy-Lieutenant for Roscommon. Eids s of the late Thos Tenison, Esq. of Crinis Tenison, co Leitrim. *London*  
**Tennent, Robt Jas.** Only s of the late Dr Tennent, of Belfast. *Belfast*  
**Thesiger, Sir Fred, D.C.L.** S of Chas Thesiger, Esq. of the island of St Vincent. *Abingdon*  
**Thickness, Ralph Anthony.** A coal proprietor. Only s of the late Ralph Thickness, Esq. of Beech Hill, Lancashire. *Wigan*  
**Thompson, Geo.** 31 s of Thos Thompson, Esq. of Leicester. *Tower Hamlets*  
**Thompson, Thos Perrott, F.R.S.** Eids s of Thos Thompson, Esq. a banker at Hull. *Bradford*  
**Thompson, Wm.** An Iron-master and Ship-owner. S of Jas Thompson, Esq. of Kendal, Westmoreland. *Westmoreland*  
**Timely, Thos.** A merchant of Liverpool. *Wolverhampton*  
**Thornhill, Geo.** *Huntingdonshire*  
**Tollmach, Hon Fred Jas.** Br of the Earl of Dysart. *Grantham*  
**Tollmach, John.** S of the late Admiral Tollmach. *Cheshire, S*  
**Townley, John.** 2d s of Peregrine Edw Townley, Esq. of Townley, Lancashire. *Beverley*  
**Townley, Rich Greaves.** S of the late Rich Greaves Townley, Esq. of Belfield Hall, Lancashire. *Cambridgeshire*  
**Trail, Geo.** A barrister. S of Jas Trail, Esq. of Ratter. *Caitnesshire*  
**Trelawny, John Salusbury.** A barrister. S of Sir Wm Trelawny, Bart. *Tavistock*  
**Trevor, Hon Geo Rice-Rice.** Eids s of Lord Dynevor. *Carmarthenshire*  
**Troppe, Sir John, Bart.** S of the 6th Bart. *Lincolnshire*  
**Tufnell, Hen.** Secretary to the Treasury. S of Wm Tufnell, Esq. *Devonport*  
**Turner, Edmond.** A Queen's Counsel. S of a banker at Truro. *Truro*  
**Turner, Geo Jas.** S of the late Rev R Turner, of Great Yarmouth, Norfolk. *County*  
**Tynte, Chas John Kemeys, F.R.S.** Only s of Chas Kemeys-Tynte, Esq. of Halswell House, Somersetshire. *Bridgnorth*  
**Tynte, Sir John Tysack.** Col. of the West Essex Militia. *Essex, N*  
**Urbiquart, David.** Only surviving s of David Urbiquart, Esq. of Bracknell, Comraty. *Stafford*  
**Vans, Lord Harry Geo.** S of the 1st Duke of Cleveland. *Durham, S*  
**Verner, Col. Sir Wm Bart.** S of the late Jas Verner, Esq. *Armagh co*  
**Vernon, John Twiss.** Bart. Eids of the late Gen Sir Harry Calvert, Bart. G.C.B. *Bedford*  
**Vesey, Hon Thos.** Eids of Visct de Vesey. *Queen's co*  
**Villiers, Visct.** Eids s of the Earl of Jersey. *Cirencester*  
**Villiers, Hon Chas Pelham.** 3d s of the late Hon Geo Villiers. *Lancashire, S also Wolver-hampton*  
**Vivian, John Ennis.** A magistrate of the county residing in Truro. *Truro*  
**Vivian, John Hen.** Br of the 1st Lord Vivian. *Swansea*  
**Vyse, Rich Hen Rich Howard.** A Captain in the Royal Horse Guards. 2d s of Col Howard Vyse, of Stoke Place, Bucks. *Northamptonshire, S*  
**Vyvyan, Sir Rich Rawlinson, Bart.** *Helston*  
**Waddington, David.** A merchant of Manchester. *Malden*  
**Waddington, Harry Spencer.** Esq. of Mr de Horsey. *Suffolk, W*  
**Wakley, Thos.** A Surgeon. S of Hen Wakley, Esq. of Membury, Devonshire. *Finsbury*  
**Walker, Rich.** An Iron-founder. S of Wm Walker, Esq. a merchant at Bury. *Bury, Lancashire*  
**Wall, Chas Baring.** A nephew of Sir Thos Baring, Bart. and s of the late Charles Wall, Esq. *Salisbury*  
**Walmesley, Sir Joshua.** A Corn-merchant. S of Mr John Walmesley, marble mason. *Leicester*  
**Walpole, Spencer Horatio.** A Barrister-at-Law. 2d s of the late Thos Walpole, Esq. of Stagbury Park, Surrey. *Midhurst*  
**Walsh, Sir John Benn, Bart.** Lord-Lieutenant of Radnorshire. *Radnorshire*  
**Walters, John Edw.** Eids of the late John Walter, Esq. Proprietor of the Times. *Nottingham*  
**Ward, Hon Geo.** Proprietor of the Weekly Chronicle. Only s of Robt Plummer Ward, Esq. *Sheffield*  
**Watkins, John Lloyd Vaughan.** Lord-Lieutenant of Brecknockshire. Eids surviving s of the late Rev Thos Watkins, of Penmore, Brecknockshire. *Brecknock*  
**Wawn, John Twissell.** S of Chas Wawn, Esq. *South Shildon*  
**Welby, Glynnne Earle.** Eids s of Sir W E Welby, Bart. Denton House, Grantham. *Grantham*  
**Wellesley, Lord Chas.** 2d s of the Duke of Wellington. *Hampshire, S*  
**West, Fred Rich.** Eids s of the Hon Fred West, of Ru-hin Castle. *Denbigh dist*  
**Weston, Hon John Craven.** 2d surviving s of 3d Lord Rossmore. *York, E*  
**Westhead, Josias Proctor.** A Merchant. Eids s of Edw Westhead, Esq. of Manchester. *Knaresborough*  
**Whitmore, Thos Charlton.** S of the late member, Mr Thos Whitmore. *Bridgnorth*  
**Willcox, Brodie Mc Ghe.** A Ship-owner. *Southampton*  
**Williams, John.** A member of the Marylebone vestry. *Macclesfield*  
**Williams, Thos Peck.** Eids of the late Thos Owen Williams, Esq. M.P. *Marlow, Great*  
**Willoughby, Sir Hen Pollard.** 2d s of the late Sir Chris Willoughby, Bart. *Evesham*  
**Wilson, Jas.** S of the late Wm Wilson, Esq. Hawick House, Roxburghshire. *Westbury*  
**Wilson, Matthew, jun.** Eids s of Matthew Wilson, Esq. of Ashton Hall, Yorkshire. *Clitheroe*  
**Wodehouse, Edm.** A cousin of Lord Wodehouse and Earl Cadwor. *Northfolk, E*  
**Wood, Rt Hon Sir Chas, Bart.** Eids s of the late Chas Wood, Esq. Chancellor of the Exchequer. Eids s of the late Sir Fras Lindley Wood, Bart. *Halifax*  
**Wood, Wm Page.** 2d s of the late Alderman Sir Matthew Wood, Bart. *Oxford city*  
**Worcester, Marq of.** Eids s of the Duke of Beaufort. *Gloucestershire, E*  
**Worley, Rt Hon Jas Archibald Stuart.** 3d s of 1st Lord Wharfedale. *Butehire*  
**Worleston, Wm Battle.** Eids s of Wm Wrighton, Esq. of Cusworth. *Northallerton*  
**Wyld, Jas.** A Mappeller. Descended from the Wylds of Worcestershire and Notts. *Boadwin*  
**Wynn, Rt Hon Chas Watkins Williams, D.C.L., F.S.A.** *Montgomeryshire*  
**Wynn, Sir Wetkin Williams, Bart.** An officer in the Guards. *Denbighshire*  
**Wyvill, Marmaduke, jun.** A Deputy-Lieutenant of Yorkshire. Eids of Marmaduke Wyvill, Esq. *Richmond*  
**Yorke, Hon Eliot Thos.** 3d s of the late Adm Sir Joseph Yorke. *Cambridgeshire*  
**Yorke, Hen Galgacus Redhead.** S of the late Hen Redhead Yorke, Esq. *York city*  
**Young, John.** S of Sir Wm Young, Bart. *Cavan co*



## THE QUEEN AND ROYAL FAMILY.

**THE QUEEN.**—VICTORIA, of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, was born May 24th, 1819; succeeded to the throne, June 20th, 1837, on the death of her uncle, King William IV.; crowned, June 28th, 1838, and married, February 10th, 1840, to his Royal Highness Prince Albert. Her Majesty is the only daughter of his late Royal Highness Edward Duke of Kent, son of King George III.

His Royal Highness Francis Albert Augustus Charles Emmanuel Busici, Duke of Saxe, Prince of Coburg and Gotha, K.G., Consort of her Majesty, born August 26th, 1819.

Her Royal Highness Victoria Adelaide Mary Louisa, PRINCESS ROYAL, born November 21st, 1840.

His Royal Highness Albert Edward, PRINCE OF WALES, born November 9th 1841.

Her Royal Highness Alice Mand, born April 25th, 1843.

His Royal Highness Alfred Ernest Albert, born August 6th, 1844.

Her Royal Highness Princess Helena Augusta Victoria, born May 25, 1846.

**THE QUEEN DOWAGER.**—Amelia Adelaide Louisa Theresa, sister to the reigning Duke of Saxe Meiningen, born August 13th, 1792; married July 11th, 1818; crowned September 8th, 1831.

## PRINCES AND PRINCESSES.

Ernest Augustus, DUKE OF CUMBERLAND, in Great Britain, and KING OF HANOVER, uncle to her Majesty, born June 5th, 1771, married, August 29th, 1815. Issue, George Frederick.

Adolphus Frederick, DUKE OF CAMBRIDGE, uncle to her Majesty, born February 24th, 1774; married, May 2nd, 1818, her Serene Highness Augusta Wilhelmina Louisa, youngest daughter of Frederick, Landgrave of Hesse. Issue, three children.

MARY, Aunt to her Majesty, born April 25th, 1776; married July 22nd, 1816, her cousin, the Duke of Gloucester, deceased.

SOPHIA, Aunt to her Majesty, born November 3rd, 1777.

Victoria Mary Louisa, DUCHESS OF KENT, born August 17th, 1786; married, in 1818, the Duke of Kent (who died January 23rd, 1820); her Majesty's mother.

Augusta Wilhelmina Louisa, DUCHESS OF CAMBRIDGE, niece of the Landgrave of Hesse, born July 25th, 1795; married, in 1818, the Duke of Cambridge, by whom she has issue, George William, Augusta Caroline, and Mary Adelaide.

George Frederick Alexander Charles Ernest Augustus, K.G., only child of the King of Hanover, Prince Royal of Hanover, cousin to her Majesty; born May 27th, 1819; married, February, 1843, Princess Mary of Saxe Altenburg, and has a son.

George Frederick William Charles, K.G., son of the Duke of Cambridge, cousin to her Majesty, born March 26th, 1819.

Augusta Caroline Charlotte Elizabeth Mary Sophia Louisa, daughter of the Duke of Cambridge, and cousin to her Majesty, born July 19th, 1822; married, June 28th, 1843, Frederick, Hereditary Grand Duke of Mecklenburg Strelitz.

Mary Adelaide Wilhelmina Elizabeth, daughter of the Duke of Cambridge, and cousin to her Majesty, born November 27th, 1833.

## THE QUEEN'S HOUSEHOLD.

Lord Great Chamberlain .. ..	Lord Willoughby D'Eresby
Lord Steward .. ..	Earl Fortescue
Lord Chamberlain .. ..	The Earl Spencer
Vice-Chamberlain .. ..	Lord E. Howard
Master of the Horse .. ..	The Duke of Norfolk
Clerk Marshal and Chief Equerry	Lord Alfred Paget
Treasurer of the Household ..	Lord Marcus Hill
Comptroller of the Household ..	Lord R. Grosvenor
Lord High Almoner .. ..	Archbishop of York
Sub-Almoner .. ..	Rev. E. Goodenough, D.D.
Clerk of the Closet .. ..	Bishop of Norwich
Master of the Buckhounds .. ..	Earl Granville
Comptroller of Accounts .. ..	Sir William Martin
Master of the Household .. ..	Colonel Bowles
Captain of the Yeomen of the Guard	Viscount Falkland
Captain of Gentlemen-at-Arms ..	Lord Foley
Lords in Waiting .. ..	Earl of Listowel, Lord Camoys, Lord Waterpark, Earl Ducie, Earl of Morley, Lord Byron, Earl of Morton, Marquis of Ormonde
Mistress of the Robes .. ..	The Duchess of Sutherland
Ladies of the Bedchamber .. ..	Countess of Mount Edgumbe, Marchioness of Douro, Countess of Disart, Countess of Gainsboro', Countess of Charlemont, Viscountess Jocelyn, Viscountess Canning, Lady Portman
Physicians .. ..	Charles Locock, Esq., M.D., Sir James Clark, Bart., and W. F. Chambers, Esq., M.D.
Surgeons .. ..	Sir B. Brodie, Bart., and R. Keate, Esq.

## HER MAJESTY'S MINISTERS.

## OF THE CABINET.

First Lord of the Treasury (Premier) ..	Lord John Russell
Lord Chancellor .. ..	Lord Cottenham
Lord President of the Council .. ..	The Marquis of Lansdowne
Lord Privy Seal .. ..	The Earl of Minto
Secretaries of State .. ..	Home: Sir George Grey Foreign: Lord Palmerston Colonial: Earl Grey
Chancellor of the Exchequer .. ..	The Rt. Hon. Charles Wood
President of the Board of Control ..	Sir J. C. Hobhouse
President of the Board of Trade .. ..	Rt. Hon. H. Labouchere
First Lord of the Admiralty .. ..	The Earl of Auckland
Paymaster-General .. ..	The Rt. Hon. T. B. Macaulay
Chancellor of the Duchy of Lancaster	Lord Campbell
Chief Commissioner Woods and Forests	Lord Morpeth
Postmaster-General .. ..	The Marquis of Clanricarde
Lord Lieutenant .. ..	IRELAND: The Earl of Clarendon
Lord Chancellor .. ..	The Rt. Hon. M. Brady
Attorney-General .. ..	Richard Moore, Esq.
Solicitor-General .. ..	James H. Monaghan, Esq.
Lord High Constable .. ..	SCOTLAND: The Earl of Errol
Lord Privy Seal .. ..	Viscount Melville
Lord Advocate .. ..	Right Hon. A. Rutherford

## GOVERNMENT OFFICES AND OFFICERS.

## TREASURY.

## WHITEHALL.

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Lord John Russell, Lord Ebrington, H. Rich, Esq., R. M. Bellow, Esq., W. G. Craig, Esq., Sir Chas. Wood, Bart. Secretaries, J. Parker, Esq., H. Tufnell, Esq. Assistant Secretary, C. E. Trevelyan, Esq. Principal Clerk, S. R. Leake, Esq. Solicitor, G. Maule, Esq. Paymaster, W. Sargent, Esq. Cashiers, H. Pemberton, E. Kitchen, Esqs. Accountant, J. Miller, Esq.

## EXCHEQUER.

## WHITEHALL YARD.

Chancellor, the Right Hon. Charles Wood, Bart. Comptroller, Lord Monteagle. Assistant, A. Eden, Esq. Chief Clerk, F. T. Otley, Esq. Accountant, G. S. Frederick, Esq.

## HOME OFFICE.

## WHITEHALL.

Secretary of State, Sir George Grey. Under Secretaries, S. M. Phillips, Esq., Sir Denis Le Marchant, Bart. Chief Clerk, T. H. Plasket, Esq. Private Secretary, H. Brand, Esq.

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## DOWNING-STREET.

Secretary of State, Lord Palmerston. Under Secretaries, the Right Hon. E. J. Stanley, H. U. Adington, Esq. Chief Clerk, G. L. Conyngham, Esq. Private Secretary, the Hon. Spencer Ponsonby.

## COLONIAL OFFICE.

## DOWNING-STREET.

Secretary of State, Earl Grey. Under Secretaries, B. Hawes, Esq., Mervale, Esq. Chief Clerk, Peter Smith, Esq. Private Secretary, the Hon. Capt. Grey.

## IRISH OFFICE.

## 18, GREAT QUEEN-STREET, WESTMINSTER.

Chief Secretary, Mr. Labouchere. Chief Clerk, George Trundle, Esq. Assistant, Hon. S. D. Montagu, Esq. Private Secretary, H. Meredith, Esq. Counsel, E. Barry, Esq.

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Private Secretary, Torrens M'Cullagh.

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## CANNON-RROW, WESTMINSTER.

President, Sir John Cam Hobhouse, and the Cabinet Ministers. Secretaries, the Right Hon. G. S. Byng, T. Wyse, Esq. Private Secretary, T. B. Hobhouse, Esq. Solicitor, R. Groom, Esq.

## ADMIRALTY.

## WHITEHALL.

Lords Commissioners, The Earl of Auckland, Admiral Dundas, Admiral Prescott, Captain the Hon. F. Berkeley, Captain Lord John Hay, the Hon. Wm. Cowper.

Secretaries, H. G. Ward, Esq., Capt. W. A. B. Hamilton, R.N.

Private Secretary, Capt. H. Eden.

Chief Clerk, H. F. Amedroz, Esq.

Hydrographer, Capt. F. Beaufort.

Assistant, M. Walker, Esq.

Civil Architect, Capt. Brandreth.

CIVIL DEPARTMENT, ROSEBURY HOUSE.

Inspector-General, Sir W. Burnett.

Director-General of Works, Col. Irvine.

Storekeeper, Hon. R. Dundas.

Chief Clerks, T. Collings, W. Leyburn, B. Fosset, Wm. Scamp, Esqs.

Accountant, J. T. Briggs, Esq.

Deputy Accountant, O'Bryan Woolsey, Esq.

Victualling, J. Meek, Esq.

## ROYAL OBSERVATORY.

## GREENWICH.

Astronomer Royal, G. B. Airy, Esq. M.A.

Assistants, Rev. R. Main, M.A., John Henry, Esq., William Ellis, Esq.

## MAGNETICAL AND METEOROLOGICAL DEPARTMENT.

Superintendent, James Glaisher, Esq.

Assistant, C. D. Lovelace, Esq.

## ROYAL HOSPITAL FOR SEAMEN.

## GREENWICH.

Governor, Vice-Admiral Sir Charles Adam, K.C.B.

Lieutenant-Governor, Rear Admiral Sir James Alexander Gordon, C.B.

Captains, J. Simpson, Thos. Dickenson, G. Moulhary, A. B. Branch, K.R.H.G.

Commanders, C. Robinson, W. C. C. Dalyell, J. Corby, E. W. Garrett.

Lieutenants, F. Bedford, W. Rivers, M. Pitton, J. W. Rouse, D. O'Brien Casey, B. J. Loveless, J. Dornford, C. McKenzle.

Chaplains, Rev. J. K. Goldney, Rev. E. Kitson.

Medical Inspector of Hospitals, John Liddell, M.D.

Deputy Medical Inspector of Hospitals, Alex. Nisbet, M.D.

Surgeon, James M'Ternan.

Dispensers, John Witmarsh, and Archibald Yair.

## CIVIL DEPARTMENT.

Commissioners, Hon. W. B. Baring, (Paymaster of the Navy), the Earl of Lincoln, Sir C. E. Douglas, M.P., Capt. Sir H. Hart, R.N., Sir W. O. Fell, R.N., George Tierney, Esq.

Secretary, J. A. Lethbridge, Esq.

## ROYAL HOSPITAL SCHOOLS.

## GREENWICH.

Superintendent, Lieut. John W. Rouse.

Lieutenant, Bassett J. Loyeless.

Chaplain, Rev. Geo. Fisher, M.A., F.R.S.

Master of the Nautical School, Edw. Riddle, F.R.S.

## WAR OFFICE.

## WHITEHALL.

Secretary at War, Rt. Hon. Fox Maule.

Deputy, L. Sullivan, Esq.

Examiner, E. Marshall, Esq.

First Clerk, J. Borrow, Esq.

Senior Clerks, H. Milton, R. Kirby, J. Sandham, J. Crooms, F. Kimpton, W. Anderson, J. Hanby, Esqs.

Private Secretary, — Carmichael Esq.

## PAYMASTER-GENERAL'S OFFICE.

## WHITEHALL.

Paymaster-General, the Right Hon. T. B. Macaulay.

Accountant, W. G. Anderson, Esq.

Paymaster, T. Fowls, Esq.

Principal Clerks, P. Graves, T. Morris, H. Burslem, F. Philpot, J. Sturton, J. Perrier, A. H. Harrison, A. Skot-towe, Esqs.

## COMMANDER-IN-CHIEF'S OFFICE.

## HORSE GUARDS.

Commander-in-Chief, Duke of Wellington.

Private Secretary, A. Greville, Esq.

Military Secretary, Lieut.-General Lord F. Somerset.

Aides-de-Camp, Col. Hon. G. Anson, Lieut.-Col. Marquis of Douro, Cornet Earl of March, Captain Marquis of Worcester.

Assistants to Military Secretary, F. H. Lindsay, Esq., F. Ferguson, Esq.

## ADJUTANT-GENERAL'S OFFICE.

## HORSE GUARDS.

Adjutant-General, Sir J. Macdonald.

Deputy, Major-Gen. G. Brown.

Assistant, Lieut.-Col. Sullivan.

Deputy, Major Roche Mead.

First Clerk, R. Cannon, Esq.

## QUARTER-MASTER GENERAL'S OFFICE.

## HORSE GUARDS.

Quarter-Master General, General Sir J. W. Gordon.

Assistant, Colonel J. Freeth.

Deputy, Major Enoch.

Confidential Clerk, J. O'Neil, Esq.

First Clerk, T. Marsh, Esq.

ADMIRALTY COURT.

2, PAUL'S BAKHOUSE-COURT, DOCTORS'-COMMONS.

Judge, Right Hon. S. Lushington, D.C.L.

Registrar, H. B. Swaby, Esq.

Queen's Advocate, Sir J. Dodson, LL.D.

Admiralty Adv., J. Phillimore D.C.L.

Judge Advocate, H. J. Shepherd Esq.

Queen's Proctor, F. H. Dyke, Esq.

Admiralty Proctor, W. Townshend, Esq.

Marshall, Hon. Hugh Lindsay.

Solicitor Chas. Jones, Esq.

JUDGE ADVOCATE-GENERAL'S OFFICE.

35, GREAT GEORGE-ST., WESTMINSTER.

Judge Advocate, Chas. Buller, Esq., M.P.

Deputy, F. N. Rogers, Esq., Q.C.

Clerks, J. Scollick, Esq., Mr. W. H. Hughes, Mr. J. Scollick, Jun.



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## BOARD OF ORDINANCE,

86, FALL MALL.  
Master-General, Marquis of Anglesey.  
Surveyor-General, Col. C. R. Fox.  
Clerk, the Hon. G. Anson.  
Storekeeper, Sir Thomas Hastings.  
Secretary to the Master-General, Lord C. Paget.

Secretary to the Board, R. Byam, Esq.  
Aide-de-Camp, Capt. H. W. Paget.

## WOODS AND FORESTS,

2, WHITEHALL-PLACE.  
Commissioners, Viscount Morpeth, Alex. Milne, Esq., Hon. C. A. Gore.

## RANGERS, KEEPERS, &c.

Windsor Great Park, Prince Albert.  
Bushy Park, Queen Dowager.  
Hyde Park, H.R.H. Duke of Cambridge.  
St. James's Park, Duke of Cambridge.  
Richmond Park, Duke of Cambridge.  
Greenwich Park, the Earl of Aberdeen.  
Hampton Court, Lady Bloomfield.  
New Forest, Duke of Cambridge.  
Whittlebury Forest, Duke of Grafton.  
Waltham Forest, Earl of Mornington.  
Wychwood Forest, Lord Churchill.  
Dean Forest, Viscount Morpeth.

## QUEEN'S MINT,

LITTLE TOWER-HILL.

Master Worker, R. L. Shell, Esq.  
Deputy, J. M. Morrison, Esq.  
Comptroller, W. H. Barton, Esq.  
Chief Engraver, Wm. Wyon, Esq.  
Assistant, Leonard Wyon, Esq.  
Chief Medallist, B. Pistrucci, Esq.  
Assayer, H. Bingley, Esq.  
Solicitor, John Blunt, Esq.

## STATE PAPER OFFICE,

12, DUKE-STREET, WESTMINSTER.  
Keeper, Right Hon. H. Hobhouse.  
Deputy, C. Lechmere, Esq.  
Chief Clerk, R. Lemon, Esq.  
Junior Clerk, T. Temple, Esq.

## PRIVY SEAL,

28, ABINGDON-STREET, WESTMINSTER.  
Lord Privy Seal, Earl of Minto.  
Chief Clerk, J. G. Donne, Esq.  
(By Patent) R. Eden, Esq.  
Keeper of Records, R. Eden, Esq.  
Clerk, W. Goodwin, Esq.

## SIGNET OFFICE,

28, ABINGDON-STREET.  
Keepers of the Signet, the Secretaries of State.  
Chief Clerks, Rev. W. H. E. Bentinck, C. S. Grey, Esq.  
Deputy T. H. Plasket, Esq.  
Record Keepers, E. D. Jones, Esq., H. W. Sanders, Esq.

## TITHE COMMISSION,

9, SOMERSET PLACE.  
W. Blamire, Esq., T. W. Buller, Esq., Rev. Richard Jones, M.A.  
POOR LAW COMMISSION,  
1 & 2, SOMERSET PLACE.  
Commissioners, G. Nichols, Esq., Sir E. W. Head, Bart.,  
Assistant Commissioners, Edward Gulson, W. H. T. Hawley, R. Hall, R. Weale, Esq., Sir J. Walsham, Bart., A. Austin, Esq., Col. Thomas F. Wade, G. G. W. Pigott, Esq.  
Secretary, E. Chadwick, Esq.  
Assistant Secretary, W. G. Lumley, Esq.

## COLONIAL LAND AND EMIGRATION COMMISSIONERS,

9, PARK-STREET, WESTMINSTER.  
T. F. Elliot, Esq., Charles Alex. Wood, Esq. Fredk. Rogers, Esq.  
Secretary, S. Walcott, Esq.

## STAMP AND TAX OFFICE,

SOMERSET HOUSE.  
Chairman, H. L. Wickham, Esq.  
Deputy, J. Thornton, Esq.  
Commissioners, C. P. Rushworth, Esq., H. S. Montague, Esq., Alfred Montgomery, Esq.  
Secretary, C. Pressly, Esq.  
Assistant Secretary, T. Keogh, Esq.  
Solicitor, Joseph Timm, Esq.  
Assistant Solicitor, Hugh Tinsley, Esq.  
Receiver-General, W. Everett, Esq.  
Comptroller, T. Lightfoot, Esq.  
Comptroller of Legacy Duties, C. Trevor, Esq.

## CUSTOM HOUSE,

Chairman, Sir Thomas Fremantle.  
Deputy, the Right Hon. G. R. Dawson.  
Commissioners, H. Richmond, Esq., S. G. Lushington, Esq., — Dickens, Esq., — Goulburn, Esq., C. C. Smith, Esq., Hon. E. Spring Rice.

Secretary, C. Scovell, Esq.  
Assistant, W. Maclean, Esq.  
Receiver-General, Sir F. Doyle.  
Comptroller-General, W. Dickinson, Esq.  
Solicitor, J. G. Walford, Esq.

## EXCISE OFFICE,

OLD BROAD STREET.  
Chairman, J. Wood, Esq.  
Deputy, Hart Davis, Esq.

## COMMISSIONERS,

T. Harrison, Esq., H. F. Stephenson, Esq., Hon. W. H. Percy, C. J. Herries, Esq., and Charles Ross, Esq.  
Secretary, J. C. Freeling, Esq.  
Assistant, G. Bolland, Esq.  
Receiver-General, W. T. Thornton, Esq.  
Comptroller and Auditor, V. Davies, Esq.  
Solicitor, C. M. Carr, Esq.  
Assistant Solicitor, J. Bateman, Esq., LL.D.

## METROPOLIS ROADS,

22, WHITEHALL-PLACE.  
Secretary, J. L. Panter, Esq.  
Surveyor-General, Sir Jas. M'Adam.  
Accountant, V. C. Wright, Esq.  
Inspector, H. Browne, Esq.  
Solicitor, J. W. Lyoo, Esq.

## OFFICE OF METROPOLITAN BUILDINGS,

6 ADELPHI TERRACE.  
Registrar, A. Symonds, Esq.  
Official Referees, W. Hosking, Esq., A. Paynter, Esq., J. Shaw, Esq.  
Examiners, Sir Robt. Smirke, J. Penne-  
thorne, Esq., T. Cnibitt, Esq.  
GENERAL REGISTER OFFICE,  
7, AND 8, SOMERSET PLACE, SOMERSET HOUSE.  
Reg.-General, G. Graham, Esq.  
Chief Clerk, Thomas Mann, Esq.  
First Clerk of Records, E. Edwards, Esq.  
RAILWAY BOARD,  
BOARD OF TRADE, WHITEHALL.  
Chief Commissioner, E. Strutt, Esq., M.P.  
Commissioners, Earl Granville, Sir E. Ryan, Lieut.-Col. H. E. Brandreth, R.E.

NAPLES AND SICILY.—Passport-office, 2, Old Cavendish-street, Mondays and Thursdays, between 10 and 12; delivered following day between 2 and 3, gratis; for persons going by sea, Consul's office, between 10 and 12—fee 10s.

PORTUGAL.—Embassy, 57, Upper Seymour-street, Bryanstone-square, between 11 and 4, delivered following day; also at Consul's office.

PRUSSIA.—106, Fenchurch-street, between 10 and 6—fee 7s.

RUSSIA.—9, Winchester-buildings, between 10 and 4; delivered following day—fee 6s. 4d.

SPAIN.—Visas to Foreign Office. Passports to British subjects, at the Legation, between 11 and 3, gratis; passports to natives at the same time and place.

SWEDEN AND NORWAY.—Embassy, 66, Mount-street, Berkeley-square, between 9 and 1; delivered following day—fee 5s.

TURKEY.—Embassy, 1, Bryanstone-square, between 12 and 3 every day, except Friday and Sunday, gratis.

TUSCANY.—15, Angel-court, Throgmorton-street, between 10 and 4, gratis.

## CITY OFFICERS.

### LORD MAYOR.

Elected September 29th.—Sworn in November 9th.

The Right Honourable John K. Hooper, Vintny, 1840.

### SHERIFFS.

Elected 24th June.—Sworn in 28th September.

William Cubitt, Esq., M.P. | Charles Hill, Esq.

### UNDER SHERIFFS.

Thos. France, Esq. | D. W. Wire, Esq.

### ALDERMEN.

THE FOLLOWING HAVE NOT PASSED THE CHAIR. When chosen Aldermen.

Wood, Thomas, Esq., Cordwainer; 3, Corbet-court, Gracechurch St.	.. 1835
Duke, Sir James, Kt., M.P., Farrington Without; Botolph-lane	.. 1840
Farncomb, Thomas, Esq., Bassishaw; Griffin's Wharf, Southwark	.. 1840
Mugrove, John, Esq., Broad-street; 18, Old Broad-street	.. 1842
Hunter, William, Esq., Coleman-street; 10, Finsbury Circus	.. 1843
Challis, Thomas, Esq., Cripplegate; 32, Wilson-street, Finsbury	.. 1843
Sidges, Hughes William, Esq., Broad-street; 17, Great Distaff-lane	.. 1843
Hughes, Thomas, Esq., M.P., Billingsgate; 8, Ludgate-hill	.. 1844
Moon, F. G. Esq., Portsoken; 20, Threadneedle-street	.. 1844

THE FOLLOWING HAVE PASSED THE CHAIR.

Hunter, Sir C. S. Bart., Bridge Without; 23, Euston-square	.. 1804
Lucas, M. P., Esq., Tower; 21, Water-lane	.. 1821
Thompson, W. Esq., M.P., Cheap; Upper Thames-street	.. 1821
Key, Sir John, Bart., Langbourn; 3, Abchurch Lane	.. 1823
Lanrie, Sir Peter, Knt., Aldersgate; 7, Park-square, Regent's-park	.. 1826
Farebrother, C. Esq., Lime-street; 6, Lancaster-place, Strand	.. 1826
Copeland, W. Esq., M.P., Bishopsgate; 37, Lincoln's Inn-fields	.. 1829
Kelly, T. Esq., Farrington Within; 17, Paternoster-row	.. 1830
Wilson, Samuel, Esq., Castle Baynard; 44, St. Paul's Church-yard	.. 1831
Marshall, Sir C. Knt., Bridge Within; 23, Russell-square	.. 1832
Pirie, Sir John, Bart., Cornhill; 1, Birchin Lane	.. 1834
Humphrey, J. Esq., M.P., Aldgate; Hay's Wharf, Southwark	.. 1835
Magnay, Sir William, Bart., Vintny; College-hill	.. 1838
Gibbs, Michael, Esq., Walbrook; 33, Walbrook	.. 1838
Johnson, John, Esq., Dowgate; Millbank	.. 1839
Carroll, Sir George, Candewick; 34, Cavendish-square	.. 1840

## EAST INDIA COMPANY.

Six Directors are elected annually in April, when six go out by rotation. Each Director serves four years. The figure prefixed denotes the number of years each has to serve.

### DIRECTORS.

(3) Chairman, Henry St. George Tucker, Esq., 3, Upper Portland-street.  
(2) Deputy Chairman, Lieutenant-General Sir James Law Lushington, G.C.B., 26, Dorset Square.

(2) William Wigram, Esq.	(1) Sir Henry Willock, K.L.S.
(1) Sir Robert Campbell, Bart.	(1) Sir James Weir Hogb Bart., M.P.
(3) John Loch, Esq.	(2) Martin Tucker Smith, Esq.
(3) Charles Mills, Esq.	(1) Lieutenant-Colonel William Henry Sykes.
(4) John Masterman, Esq., M.P.	(3) Wm. Henry Chicheley Plowden, Esq.
(2) John Petty Muspratt, Esq.	(4) Major-General Archibald Galloway
(2) George Lyall, Esq.	(2) Elliot Macnaghten, Esq.
(3) Henry Shank, Esq.	(1) John Clarmont Whiteman, Esq.
(4) Russell Elicce, Esq.	(4) Ross Donnelly Mangles, Esq., M.P.
(3) Sir Richard Jenkins, G.C.B.	(1) William Joseph Eastwick, Esq.
(4) John Cotton, Esq.	
(4) William Butterworth Bayley, Esq.	

### THE FOLLOWING GENTLEMEN ARE OUT BY ROTATION.

Henry Alexander, Esq.	John Shepherd, Esq.
Hon. William Henry Leslie Melville.	Francis Warden, Esq.
Major James Oliphant, Esq.	Sir William Young, Bart.

## LAW COURTS.

CHANCERY.—Lord High Chancellor, Lord Cottenham. Master of the Rolls, Lord Langdale. Vice Chancellor, Sir L. Shadwell. First Vice Chancellor, Sir James L. K. Bruce; Second ditto, Sir James Wigram.  
QUEEN'S BENCH.—Lord Chief Justice, Lord Denman. Judges, Sir John Patteson, Sir John T. Coleridge, Sir Wm. Wightman, Sir Wm. Erie.  
COMMON PLEAS.—Lord Chief Justice, Sir Thomas Wilde. Judges, Sir Thomas Coltman, Sir Wm. Hen. Maule, Sir W. Cresswell, Sir Vaughan Williams.  
EXCHEQUER.—Lord Chief Baron, Sir Frederick Pollock. Barons, Sir James Parke, Sir Edw. H. Alderson, Sir Robert M. Rolfe, Sir Thomas J. Platt.

## COURT OF BANKRUPTCY.

Birmingham, John Balguy, Q.C., Esq., and Robert Daniell, Esq.  
Liverpool, Walter Skirrow, Esq., and — Perry, Esq.  
Manchester, Ebenezer Ludlow, Esq., Sergeant, and Wm. Thos. Jemmett, Esq.  
Leeds, Martin John West, Esq., and W. S. Ayrton, Esq.  
Bristol, H. J. Stephen, Esq., Sergeant, and Richard Stevenson, Esq.  
Exeter, Edward Goulburn, Esq., Sergeant  
Newcastle, N. Ellison, Esq.

## OLD BAILEY SESSIONS FOR 1848.

Monday, Jan. 3.	Monday, May 15.	Monday, Sept. 13.
Monday, Jan. 31.	Monday, June 12.	Monday, Oct. 23.
Monday, Feb. 28.	Monday, July 3.	
Monday, April 3.	Monday, August 21.	

## BANK OF ENGLAND.

GOVERNOR.—James Morris, Esq.—DEPUTY GOVERNOR.—H. J. Prescott Esq.  
DIRECTORS.

Arthur Edward Campbell, Esq.	Charles Frederick Huth, Esq.
Edward Henry Chapman, Esq.	Alfred Latham, Esq.
William Cotton, Esq.	James Malcolmson, Esq.
Bonamy Dobree, Esq.	Humphrey St. John Midmay, Esq.
Charles Pascoe Grenfell, Esq.	Sheffield Neave, Esq.
John Gellibrand Hubbard, Esq.	George Warde Norman, Esq.
Thompson Hankey, jun. Esq.	John Horsley Palmer Esq.
John Oliver Hanson, Esq.	James Pattison, Esq.
John Benjamin Heath, Esq.	Sir John Henry Pelly, Bart.
Kirkman Daniel Hodgson, Esq.	Henry James Prescott, Esq.
Henry Lancelot Holland, Esq.	William Thompson, Esq., Alderman
Thomas Newman Hunt, Esq.	Thomas Tooke, jun. Esq.

## CONSULATE AND PASSPORT OFFICES.

AUSTRIA.—Embassy, 7, Chandos-street, Cavendish-square, between 12 and 2.  
BELGIUM.—Legation, 9 A, Weymouth-street, Portland-place, between 11 and 3; delivered next day between 11 and 2, gratis; at the Consul's office, between 10 and 4—fee 5s.  
BAVARIA.—The Minister, 3, Hill-street, Berkeley-square, when personally known to him; or at the Consul Office.  
BRAZIL.—Legation, 10, York-place, Portman-square, between 12 and 2, gratis.  
DENMARK.—6, Warrford-court, between 10 and 4—fee 10s. 6d.  
FRANCE.—French passport-office, 6, Poland-street, Oxford-street, from 11 to 5; delivered next day between 1 and 3, on personal application, gratis; also at the Consul's office, between 12 and 4—fee 10s.  
GREECE.—25, Finsbury-circus, between 11 and 4—fee 2s. 6d.  
HANOVER.—Secretary to Embassy, 4, Hobart-place, Eaton-square, between 10 and 3; and at the Consul's Office, between 10 and 3, gratis.



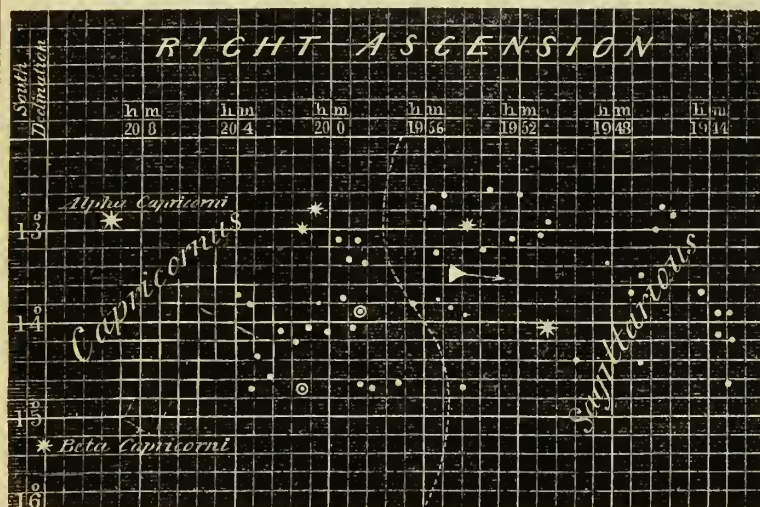
## THE POLE STAR.

THE Pole Star, or, as it is called by Astronomers, Polaris, is situated very near to that point in which the Earth's axis of rotation, if continued, would meet the Heavens; if the star were situated *exactly* at this point it would remain immovably fixed in the centre of the field of a telescope when directed towards it, from year to year, and the star would always be really due N., but it is *not* so situated. All stars will appear to describe circles round this point, proportioned to their angular distance from it (the North Pole), once in twenty-four hours, so that twice every day the same star must be on the Meridian, once above this point and once below it. The following are the times on the 1st day of every month this year, that Polaris is so situated, and at no other times is the star due N. on these days:—

	H. M. S.		H. M. S.
January 1st at	6 24 45 A.M. below the Pole; and	6 22 47 P.M. above the Pole	
February	" 4 22 28 "	" 4 20 30 "	" "
March	" 2 28 7 "	" 2 26 9 "	" "
April	" 0 26 5 "	" 0 24 7 "	" "
May	" 10 26 16 "	" 10 24 8 "	below the Pole
June	" 8 24 43 "	" 8 22 45 "	" "
July	" 6 27 7 "	" 6 25 9 "	" "
August	" 4 2 44 "	" 4 0 46 "	" "
September	" 2 24 46 "	" 2 22 48 "	" "
October	" 0 26 19 "	" 0 24 21 "	" "
November	" 10 22 27 "	" 10 20 29 "	above the Pole
December	" 8 24 26 "	" 8 22 28 "	" "

From these times those of the Meridian passage of the star can be easily calculated for any other day in each month.

POSITION OF THE NEW PLANET AMONG THE STARS, ON ITS DISCOVERY BY MR. HIND.



The Planet, at the time of its discovery, occupied the space within the triangle, and the arrow shows the direction of its motion at that time.

## PUBLIC INCOME AND EXPENDITURE.

AN account of the total amount of the public revenue received into and expended from the Exchequer, and the balances remaining at the close of each year from 1836 to 1846 inclusive, was ordered by the Commons to be printed on the 19th January, 1847.

The total amount of income received into the Exchequer during the past year, 1846, was £53,790,138, and the total expenditure therefrom £50,943,830, including £28,077,987, for the annual charge on the funded and unfunded debt; £2,736,807 for other charges on the Consolidated Fund; £16,864,697 for the army, navy, and ordnance services; and £3,264,339, for miscellaneous services, leaving a surplus of income amounting to £2,846,308. In 1845 the excess of income was £3,817,642, the receipts having amounted to £53,060,354, and the expenditure to £49,242,712.

The gross total estimated amount of the taxes repealed or reduced during the above mentioned decennial period is £10,042,414: the principal items being pepper, sugar, paper, spiritlicences, newspaper stamps, postage, coffee, timber, export duties, Customs duties, Irish spirits, marine insurances, cotton-wool, coals, (export duty), glass, auctions, corn, provisions, &c.

The total amount of the new taxes concurrently imposed is £7,940,993, the principal items being the income-tax, which alone contributes £5,100,000, and the increase of 5 per cent. on the Customs and Excise proposed in 1840 by Mr. Baring.

The Capital of the funded and unfunded debt now amounts to £782,918,984, viz., £764,608,294 for the funded, and £18,310,700 for the unfunded debt.

The balance in the Exchequer at the close of the year (1846) amounted to the sum of £9,131,282. Such are the interesting particulars which have been gleaned from this return.

## RAILWAY RECEIPTS.

THE casual observer of Railway proceedings is little aware of the magnitude of their dealings. The following enormous amount of receipts, the produce of 37 Railways in England, Ireland, and Scotland, for passengers and goods traffic, is calculated from weekly official returns made to the Government, and are taken from the latter end of September and the beginning of October, which may be relied on as a fair average of the yearly produce of these 37 Railways.—

	£	s.	d.
Received, on 27 Lines, for passengers, mails, carriages, and parcels traffic	5,749,979	10	4
Received on Ditto, for goods, cattle, sheep, &c.	2,502,737	18	0
Received, on 10 Lines, which have not distinguished the Passengers from the goods traffic; but which have given a gross return only	3,101,015	4	8
	£11,353,732	13	0

Another immense item, which has, perhaps, not been generally noticed, is the outlay—upwards of £13,000,000 have already been expended this year on 50 Railways now in progress or extension.

If this star be viewed through a good telescope for a few minutes, it will be seen decidedly to have changed its place; though the change will not appear to be large. If the telescope then be directed to a star situated some distance from the Pole, the latter star will move rapidly, and pass across the field of view in a short time; for in what proportion soever an object be magnified, if it be in motion, its velocity will be increased in the same ratio, and no inexperienced observer can view the rapidity of a star's motion across the field of a telescope without feeling a degree of surprise. No telescope, however powerful, has yet been constructed capable of showing any sensible size to the fixed stars.

## ZODIACAL LIGHT,

A BRIGHTNESS sometimes seen in the Heavens at certain times of the year, after Sunset, or before Sunrise. This light in some respects resembles that of the Milky Way, but is less bright. Its form resembles that of a pyramid, lying lengthways in the Zodiac, within which its apex and axis always lie. Its base is at all times towards the Sun. In our latitude it may be seen about the times of the equinoxes, and probably the best time for seeing it is at the beginning of March, at about seven o'clock in the evening, when the twilight is ending, and the equinoctial point is in the horizon.

This light is more or less visible according to circumstances; its oblique position does not permit us to see it distinctly, and sufficiently above the horizon, except some little time after Sunset towards the end of the Winter and the beginning of Spring, and some little time before Sunrise in Autumn, and the beginning of Winter. Several causes exist to hinder our seeing it readily, such as moonlight and strong twilight.

The writer of this, however, has seen it frequently at these times, but more particularly at the time of the presence of the Great Comet in the Spring of 1843; but, probably, the best appearance of the light was seen by him in the year 1842, on December 2nd, at 6 h. A.M. The light was then very bright; its extreme right edge passed through Spica Virginis, a little to the right of the Planet Mars, very nearly through Beta Virginis, and, leaving Regulus to the left, it was lost in the trapezium formed by the four stars Gamma, Eta, Chi, and Xi Leonis; downwards it extended to within 5° of the horizon; the other boundary passed from the trapezium through Beta Leonis, and to the left of Epsilon Virginis, and so downwards towards the horizon. At about 5° altitude its base was about 20°, or something less than the distance of Spica from Beta Virginis.

## THE NEW PLANET IRIS.

On the 13th of August, 1847, Mr. Hind discovered a new Planet, forming one of the remarkable group, between Mars and Jupiter. The symbol first adopted was that which will be found in the following page; we understand, however, that the symbol now adopted is a semicircle with an interior star. The Planet was detected in a systematic search for one, instituted expressly with the view to the discovery of such a body, and commenced in November, 1846. The elements of the new Planet by Mr. Hind are

Mean Anomaly	303°	9'	2"	58	Mean Equinox,
$\pi$	38.	36.	28.	57	September 0.
$\Omega$	258.	52.	48.	41	
$i$	5.	22.	41.	75	
$\phi$	14.	43.	10.	80	
Log. $\mu$	0.	3858212			
$\epsilon$	935''	9978			
$\epsilon$	0.254090				

We understand that Mr. Hind has discovered another new Planet, forming one of the same group, and situated between Mars and Jupiter.

The following list shows the amount required to pay Railway Calls, during one month (October) of 1847:—

	Date when Due.	Amount per Share.	No. of Shares.	Total.
Birkenhead, Lancashire, and Cheshire Junction, £31	28	£1 5	45,000	£56,250
Caledonian (Original)	1	10 0	42,000	420,000
Ditto (Halves)	14	1 5	51,000	63,750
Chester and Holyhead (£50 Shares)	21	5 0	42,000	210,000
Dundalk and Enniskillen	15	2 10	15,000	37,500
East Indian	15	1 0	220,000	220,000
East Anglian (£3 10s. Shares Second Issue)	7	1 0	22,800	22,800
East Lancashire Quarters	14	2 10	34,720	86,800
Fleetwood, Preston, and West Riding Junction	15	1 10	22,500	33,750
Irish South-Eastern	1	1 0	52,500	52,500
Londonderry and Enniskillen	15	1 5	10,000	12,500
London and North-Western (L. and B. £25)	1	5 0	55,000	275,000
Ditto (G. J. £25)	15	5 0	24,789	123,915
Londonderry and Coleraine	16	2 10	10,000	25,000
Leeds, Dewsbury, and Manchester (Branch £25)	4	5 0	4,000	20,000
Leeds and Bradford	15	5 0	18,000	90,000
Lancashire and York (Wakefield, Pontefract and Goole, £50)	1	5 0	7,300	36,500
Ditto (Ex. Stock, £32, or Thirds)	11	3 0	48,444	145,332
Ditto (Huddersfield & Sheffield Junc. £50)	12	5 0	10,640	53,200
Manchester, Sheffield, and Locomotive, Preference, £10	1	5 0	87,200	436,000
Newcastle and Carlisle New, £100 (Issued July 26, 1847)	21	10 0	2,400	24,000
Newry, Warrenpoint, and Rostrevor	1	1 5	5,000	6,250
Namur and Liege	12	2 0	50,000	100,000
Oxford, Worcester, and Wolverhampton	12	7 10	30,000	225,090
St. Helen's Canal and Railway £25, (6 per Cent. guaranteed)	1	2 10	6,336	15,840
Swansea, Loughor, &c.	12	2 0	20,000	40,000
Tourney, Jurhise, and Landen and Hussitt	25	4 0	25,000	100,000
York and North Midland (Hull and Selby purchase)	7	4 0	62,950	251,800
York, Newcastle, and Berwick (Ex., No. 2)	14	5 0	62,000	310,000
Total				£3,493,717



## NEW DOMESTIC RECEIPTS.

## HOT CRAB.

Pick the Crab, cut the solid part into small pieces, and mix the inside with a little rich gravy or cream, and seasoning; then add some curry-paste, and fine bread-crumbs; put all into the shell of the Crab, and finish in a Dutch oven, or with a salamander.

## NEW MODE OF MAKING COFFEE.

Dr. Ratier assures us that the aroma of Coffee is better extracted by cold water than by hot. For this purpose, he recommends that four ounces of good Coffee, properly roasted and ground, be mixed into a pap, or thin paste with cold water, and left to steep, covered closely, for a night. Next day, pour this pap carefully on fine linen, placed in a glass funnel, in a hottle. A single spoonful of this very strong infusion, poured into a cup of boiling milk, will give the whole a delightful aroma. Or, one part of the infusion, and two parts of water, put on the fire till it first boils, will yield a delicious Coffee. The strong essence should be kept in a closely-stopped hottle.

## TO DRESS HARICOT BEANS.

Many persons are prejudiced against certain vegetables, (says the *Midland Florist*), for no other reason than because they are not used to them, &c. For instance, we seldom hear of French Beans being cooked when in a dry state; yet, on the Continent, they are highly esteemed; and if given a fair trial here, we see no reason why they should not become as much used for soup making as peas. The Haricot Beans should be prepared as follows:—Put the Haricots into cold water, boil them gently till the skins begin to crack, then pour away the water, which is always nauseous; have ready boiling water to supply its place; simmer the Haricots till tender. They must not be allowed to get cold whilst cooking, or they can never be boiled tender.

## TO PRESERVE BUTTER.

The cause of the tainting of fresh Butter depends upon the presence of a small quantity of curd and water. To render Butter capable of being kept for any length of time in a fresh condition, that is as a pure solid oil, all that is necessary is to boil it in a pan till the water is removed, which is marked by the cessation of violent ebullition. By allowing the liquid oil to stand for a little, the curd subsides, and the oil may then be poured off, or it may be strained through calico or muslin into a hottle, and corked up. When it is to be used, it may be gently heated and poured out of the hottle, or cut out by means of a knife or cheese-gongee. This is the usual method of preserving Butter in India (ghee), and also on the Continent; and it is rather remarkable that it is not in general use in this country. Bottled Butter will thus keep for any length of time; and is the best form of this substance to use for sauces.

## PICKLED EGGS.

In the counties of Hants and Dorset, Pickled Eggs constitute a very prominent feature in the farmhouse store-room. The mode in which the good dames pickle them is simply this:—At the season of the year when their stock of Eggs is plentiful, they boil some four or six dozen in a capacious saucepan, until they become quite hard. They then, after removing the shells, lay them carefully in large-mouthed jars, and pour over them scalding vinegar, well seasoned with whole pepper, allspice, and a few pieces of ginger, and a few cloves of garlic. When cold, they are hunged down close, and in a month are fit for use. Where Eggs are plentiful, the above pickle is by no means expensive, and is a relishing accompaniment to cold meat.

## TO DRESS VEGETABLE MARROW.

Have ready a gallon saucepan, rather more than half full of boiling water. Just before putting in the Marrow, throw in a teaspoonful of salt and half a one of carbonate of soda. Cut the Marrow into four parts, lengthwise, without peeling it; or if it be the very large kind, divide each quarter transversely, making eight pieces. The small delicate Persian variety need only be halved lengthwise. Throw the pieces quickly into the water, keeping it rapidly boiling all the time; they will take from a quarter to half an hour, according to the species and age. They are best when ten days or a fortnight old, but are excellent whatever age they are. While the marrow is boiling, make about the dip of the toast twice into the water in which the marrow is boiling; lay it in a dish, and pepper it slightly. When done, take up the Marrow carefully with a fish-slice or large spoon, and lay it on the toast; pepper it well, and pour the melted butter over all. It should be served up as hot as possible. Prepared thus, vegetable marrow is scarcely inferior to asparagus, and forms an elegant and wholesome supper-dish; as a dinner vegetable, it should appear with roast mutton. Be sure never to peel the Marrow.

## STONE'S PATENT RHUBARB WINE.

Take the green stalks, or stems of the Rhubarb Plant, (about the middle of May), and bruise them, in a mortar, or otherwise, to a pulp. Put this into an open tub, and to five pounds of pulp add one gallon of cold spring water. Let it infuse three days, stirring it frequently; on the fourth day, strain off the liquor, and to each gallon add 3lb loaf sugar; stir it until the sugar be dissolved. Then, let it rest, and in four or five days, the fermentation will begin to subside, and there will be formed a crust, or head, which should be skimmed off. Put the clear wine into a cask, but do not then stop it down. If it begin to ferment, rack it into another cask; in about a fortnight, stop it down, and let it remain till March in the next year, when it should be racked, and again stopped down; but if the wine should have lost any of its original sweetness, add a sufficient quantity of loaf sugar, and stop it down; taking care, in all cases, that the cask be full. In a month, or six weeks, it will be fit to bottle, and in the summer to drink. Rhubarb, about the latter end of August, will produce a second crop, when a second quantity of wine may be made.

## ICEING.

The artificial production of Ice has, of late, been brought to great perfection. A *Freezing Powder* is made by Messrs. Lings and Keith, of Princes-street, Leicester-square, by which a hottle of wine may be iced at the cost of little more than a penny! By aid of machinery and this freezing preparation, a large castle has been frozen, in metal moulds, from the freezing spring water; it was five feet in length, the same in height, and weighed nearly 7 cwt. *The Patent Ice-Safe*, by the above makers, is a successful invention. It resembles a large chest, opening in front, as well as at the top: the outer sides are thick, and filled with a non-conducting substance; the interior is fitted with zinced shelves, the ice being placed in a central upright chamber. The advantages of this Safe are not only due to the cold and at the same time perfectly dry atmosphere existing in its interior, in consequence of the patented principle of the ice being contained in a separate chamber, but also to its great economy in the consumption of Ice. Fruit and vegetables, including strawberries, asparagus, cucumbers, &c., may be preserved in this Safe upwards of a fortnight, in a state quite fit for the table; and butter may be almost frozen in it in two hours.

## FIRES IN CHIMNEYS.

Fires in chimneys in France have been prevented by placing three frames of wire-work, one foot above each other, near the lower mouth of the chimney; no flame will pass through them, and, consequently, no fire can happen; while the draught of the chimney will not be impaired.

## TO REMOVE IRON-MOULD.

Dr. Thomson recommends that the part stained should be re-moistened with ink, and this removed by the use of muriatic acid, diluted with five or six times its weight of water, when the old and new stain will be simultaneously removed.

## THE BEST TOOTH-POWDER.

Finely-powdered charcoal (calcined bread or sugar), forms an excellent Tooth-powder: it cleanses the mouth both mechanically and chemically; but, as it is dusty, and not easily miscible with water when alone, it may, on this account, be mixed with an equal weight of prepared chalk, and, if agreeable, be scented with a few drops of oil of cloves.

## TO REMOVE WARTS.

Mr. Erasmus Wilson, in his popular work on "Healthy Skin," says: "The best treatment of Warts is to pare the hard and dry skin from their tops, and then touch them with the smallest drop of strong acetic acid, taking care that the acid does not run off the wart on the neighbouring skin; for, if it do, it will occasion inflammation and much pain. If this practice be continued once or twice daily, with regularity, paring the surface of the Wart occasionally, when it gets hard and dry, the Wart may be soon effectually cured."

## THE CREOSOTE MEAT-SAFE.

Creosote is a newly-discovered article used for preserving meat, but giving it a disagreeable taste and smell. This, Dr. Stenhouse has obviated, by placing a small plate containing a little Creosote immediately under each piece of meat as it bangs in the larder, and covering both with a cloth. The Creosote soon forms an atmosphere around the meat, and will keep it three or four days longer than otherwise; and the meat will not have when cooked, the slightest smell or taste of Creosote. Or, the joint may be suspended in a wooden box or earthen jar, to be with a lid. Another advantage attending the use of Creosote is, that it frees a larder from flies.

## DANGER OF LEAD CISTERNS.

Any person possessed of a Leaden Cistern should forthwith get for it a temporary zinc bottom, to fit inside and to lay above the other. Leaden waterpipes might have an inch or two of zinc pipe screwed on at the end,—so that it may from time to time be removed and cleaned. Once a week or fortnight this bottom should be taken out and properly cleaned. The metal is wholesome, not expensive,—and malleable zinc will be the most convenient for the purpose. It should be added that, as sure as night succeeds to day, every particle of lead that may from time to time be in solution, will make for, or be precipitated on the zinc,—there to remain till brushed off.

## TO TAKE PAINT OFF OAK-PANELING.

The only method of removing Paint from oak-paneling, carving, &c., is as follows:—Make a strong solution of American potash (which can be bought at any colour shop, and resembles burnt brick in appearance); mix this with sawdust into a sort of paste, and spread it all over the paint, which will become softened in a few hours, and is easily removed by washing with cold water. If, after the paneling, &c. is dry, it becomes cracked, apply a solution of hot size with a brush, which will bind it well together, and make it better for varnishing; as well as destroy the beetle which is often met with in old oak, and is erroneously called the worm.

## CEMENT FOR CHINA AND GLASS.

The most successful Cement for fractured porcelain and glass is composed as follows: two parts isinglass, cut into fine pieces, are left for 24 hours, covered with 16 parts water, then boiled down to eight parts, mixed with eight parts alcohol, and strained through linen. This liquid is mixed while hot with a solution of one part mastic, in nine parts alcohol; and to the whole half part gum ammoniacum, finely pulverised, is added gradually, and the liquid thoroughly mixed. This Cement, while hot, is quite liquid, but on cooling becomes hard; in using it, both the Cement and the fragments are made as warm as possible, both pieces allowed to dry, then again rubbed over with the cement and pressed together. After five or six hours the cement is perfectly hard. It is not applicable to vessels of porous earthenware; the best Cement in this case is the thick solution of shell-lac in spirits of wine.

## DEATH FROM EATING CAKE ORNAMENTS.

The experience of every year adds to the proof of the danger of Cake decorations. In January last, an inquest was held at Sudbury, on the body of Maria Louisa French, aged 8 years, who died from eating some ornaments on a Twelfth Cake. On examining the green particles discharged from the stomach, they were found to consist of Scheele's Green, or arsenite of copper, a deadly poison. The Jury returned the following verdict:—"That the deceased came to her death from accidentally eating Ornaments from Cakes of a poisonous nature, and from no other cause. The Jury unanimously add, that from the number of fatal accidents that have of late years happened by the useless, but common practice of using various poisonous ingredients in embellishing cakes and other articles of confectionary, it is their decided opinion that a practice fraught with danger to the lives or health of her Majesty's subjects ought to be immediately restrained."

## THE PHILOSOPHY OF DROWNING.

Man is the only animal that drowns naturally. He does so because he is endowed with reason—that is to say, with a large spherical brain with a skull on it, which rises above his nose. If he fall into deep water, in spite of his great brain, he has not presence of mind enough to stick his nose out and keep it out, as he easily might do; but his heavy head, like a stone, presses his nose under water. In this position he inhales and fills his chest with water,—so that he becomes on the whole so much heavier than water as to sink. While the lungs are filled with air, the body is lighter than its bulk of water, and of course swims just as an iron vessel does. All, therefore, which is necessary to keep a person from drowning in deep water is to keep the water out of the lungs. Suppose yourself a bottle. Your nose is the nozzle of the hottle, and must be kept out of the water. If it goes under, don't breathe at all till it comes out. Then, to prevent its going down again, keep every other part under—head, legs, arms, all under water but your nose. Do that, and you can't sink in any depth of water. All you need to do to secure this is to clasp your hands behind your back, and point your nose at the top of the heavens and keep perfectly still. Your nose will never go under water to the end of time, unless you raise your brain, hand, knee, or foot higher than it. Keep still with your nose turned up in perfect impudence, and you are safe. This will do in tolerably still water: in boisterous water you will need a little of the art of swimming.



# THE ILLUSTRATED LONDON ALMANACK FOR 1848.

## STAMPS AND TAXES.

### RECEIPT STAMPS.

For £5 and under £10		s. d.	For £200 and under £300		s. d.
10	20	0 3	300	500	5 0
20	50	0 6	500	1000	7 6
50	100	1 0	1000 and upwards		10 0
100	200	2 6	In full of all demands		10 0

N.B.—Persons receiving the money are compelled to pay the duty.

### BILLS AND NOTES.

		Not ex.		Exceed.	
		2 months.		2 months.	
		s. d.	s. d.	s. d.	s. d.
£2 and not exceeding	£5 5s.	1 0	1 6	1 6	1 6
Above 5	20	1 6	2 0	2 0	2 0
20	50	2 0	2 6	2 6	2 6
50	100	3 6	4 6	4 6	4 6
100	200	4 6	5 0	5 0	5 0
200	300	5 0	6 0	6 0	6 0
300	500	6 0	8 6	8 6	8 6
500	1000	8 6	12 6	12 6	12 6
1000	2000	12 6	15 0	15 0	15 0
2000	3000	15 0	25 0	25 0	25 0
Above	3000	25 0	30 0	30 0	30 0

Promissory Note for the payment of any sum of money by instalments, the same duty as on a Promissory Note payable in less than two months.

### BONDS AND MORTGAGES.

Any sum not exceeding		£50	£1 0	Above £2,000 not exceeding	3,000	£7 0
Above £50 not exceeding	100	1 10	3 000	..	4,000	8 0
" 100 ..	200	2 0	" 4,000 ..	..	5,000	9 0
" 200 ..	300	3 0	" 5,000 ..	..	10,000	12 0
" 300 ..	400	4 0	" 10,000 ..	..	15,000	15 0
" 500 ..	1,000	5 0	" 15,000 ..	..	20,000	20 0
" 1,000 ..	2,000	6 0	Exceeding 20,000	25 0		

Bonds of every 1080 words above the first, 25s. Mortgages, 20s.

### APPRENTICES' INDENTURES.

Under		£30	£1	£100 and under	£200	£6	£400 and under	£500	£25
£30 and under	50	2	200	..	300	12	500	..	600
50	100	3	300	..	400	20			

Where no such consideration, if the instrument shall not contain more than 1080 words, £1. And if it shall contain more than that quantity, £1 15s.

### PROBATES OF WILLS AND LETTERS OF ADMINISTRATION.

Above the Value of		And under.	With a Will.	Without a Will.
£		£	s.	10s.
20	..	50	0 0	..
20	..	100	0 10	..
50	..	100	1 0	£1
100	..	200	2 0	3
200	..	300	5 0	8
300	..	450	8 0	11
450	..	600	11 0	15
600	..	800	15 0	22
800	..	1,000	22 0	30
1,000	..	1,500	30 0	45
1,500	..	2,000	40 0	60
2,000	..	3,000	50 0	75
3,000	..	4,000	60 0	90
4,000	..	5,000	80 0	120
5,000	..	6,000	100 0	150

The scale continues to increase up to £1,000,000.

### APPRAISEMENT STAMPS.

Where such appraisements of value		s. d.	Above £100 not exceeding	£200	£0 15
ation shall not exceed	£50	2 6	200	..	300
Above £50 and not exceeding	100	5 0			500

### DUTIES ON LEGACIES.

Of the value of £20, or upwards, out of Personal Estate, or charged upon Real Estate, &c.; and upon every share of Residue—To a child, or parent, or any lineal descendant, or ancestor of the deceased, £1 per cent. To a Brother or Sister or their descendants, £3 per cent. To an Uncle, or Aunt, or their descendants, £5 per cent. To a Great Uncle, or Great Aunt, or their descendants, £6 per cent. To any other Relation or Stranger in Blood, £10 per cent.—Legacy to Husband or wife exempt.

If the deceased died prior to the 5th of April, 1805, the duty only attaches on Personal Estates, and by a lower scale.

### LICENSES.

For Marriage, if special	..	..	£5 0
Ditto, if not special	..	..	0 10
For Bankers	..	..	30 0
For Pawnbrokers, within the limits of the twopenny post	..	..	15 0
Elsewhere	..	..	7 10
For Appraisers	..	..	2 0
For Hawkers and Pedlars, on foot	..	..	4 0
Ditto, with one horse, ass, or mule	..	..	8 0
Stage Carriage License, for every carriage	..	..	3 3
Hackney Carriage License, for every carriage	..	..	5 0
Selling Beer, to be drunk on the Premises	..	..	3 3
Ditto, not to be drunk on the Premises	..	..	1 1

### DOGS.

For every greyhound	..	..	£1 0 0
For every hound, pointer, setting dog, spaniel, terrier, or lurcher,	..	..	..
and for every dog, where two or more are kept, of whatever	..	..	..
denomination they may be (except greyhounds)	..	..	0 14 0
For every other dog, where one only is kept	..	..	0 8 0
Compounding a pack of hounds	..	..	36 0 0

Farmers with farms under £100 value, and shepherds, are exempt from dogs kept for the care of sheep.

## WINDOW TAX.

Windows	Duty per Annum.	Windows	Duty per Annum.	Windows	Duty per Annum.	Windows	Duty per Annum.
8	£ 0 16 6	16	£ 3 18 6	24	£ 7 5 9	32	£ 10 13 3
9	1 1 0	17	4 7 0	25	7 14 3	33	11 1 6
10	1 8 0	18	4 15 2	26	8 2 9	34	11 10 0
11	1 16 3	19	5 3 9	27	8 11 0	35	11 18 3
12	2 4 9	20	5 12 3	28	8 19 6	36	12 6 9
13	2 13 3	21	6 0 6	29	9 8 3	37	12 15 3
14	3 1 9	22	6 9 0	30	9 16 3	38	13 3 6
15	3 10 0	23	6 17 6	31	10 4 9	39	13 12 0

Farm-houses belonging to Farms under £200 a year are exempt.

\*. By cap. 17, 3 and 4 Vict., an additional £10 per cent. is imposed upon all the Assessed Taxes, Customs, and Excise.

### DUTIES ON CARRIAGES.

#### WITH FOUR WHEELS.

No.	Per carriage for private use.	No.	Stage coaches & post chaises.
	£ s. d.		£ s. d.
1	6 0 0	1	5 5 0
2	6 10 0	2	10 10 0
3	7 0 0	3	15 15 0
4	7 10 0	4	21 0 0
5	7 17 6	5	26 5 0
6	8 4 0	6	31 10 0
7	8 10 0	7	36 15 0
8	8 16 0	8	42 0 0
9	9 1 6	9	47 5 0

#### WITH TWO WHEELS.

No.	£ s. d.
1	3 5 0
2	4 10 0
3	1 11 6
4	3 3 0
5	6 0 0

For every carriage with four wheels, being of less diameter than thirty inches each, where drawn by ponies or mules, above twelve and not exceeding thirteen hands, per annum, £3 5s.; if with less than four wheels, and the ponies not exceeding twelve hands, and not let for hire, exempt. For every carriage with four wheels, drawn by one horse and no more, per annum, £4 10s. Carriages with less than four wheels, drawn by one horse, and constructed and marked as described by Act 6 & 7 Wm. IV., c. 65, and 1 Vict. c. 61, not exceeding £21 in value; also common stage carts, constructed for the carriage of goods, and occasionally used for riding, are exempt.

### HORSE TAX.

#### FOR RIDING OR DRAWING CARRIAGES.

No.	Each Horse.	No.	Each Horse.
	£ s. d.		£ s. d.
1	1 8 9	11	3 3 6
2	2 7 3	12	3 3 6
3	2 12 3	13	3 3 9
4	2 15 0	14	3 3 9
5	2 15 9	15	3 3 9
6	2 18 0	16	3 3 9
7	2 19 9	17	3 4 0
8	2 19 9	18	3 4 6
9	3 0 9	19	3 5 0
10	3 3 6	20	3 6 0

Horses let to hire with post duty, each .. .. £1 8 9  
 Race Horses, each .. .. 3 10 0  
 Horses rode by hutchers in their trade, each .. .. 1 8 9  
 Where two only are kept, the second at .. .. 0 10 6  
 Horses for riding, and not exceeding thirteen hands, each .. 0 1 0  
 One horse used by a bailiff on a farm .. .. 1 5 0  
 Other horses, thirteen hands high, and mules, each .. .. 0 10 6  
 A horse used for riding by any one occupying a farm of less annual value than £500, is exempt, provided not more than one is kept; as are also horses employed by market gardeners, in their business.

### PENALTIES UNDER THE STAMP ACT.

For acting as an Appraiser without a license, £50.  
 For every Appraisal written upon paper not duly stamped, £50.  
 Apprentices' Indentures to state the real amount of premium, in proportion to which the stamp duty is charged, on penalty of forfeiting double the amount of premium.  
 For Attorneys and Solicitors acting without having been admitted, £100.—For acting without certificate, £50.  
 For drawing a Bill or Promissory Note upon unstamped paper, or upon paper insufficiently or wrongly stamped, £50.—For post-dating Bills of Exchange, £100.  
 For drawing a Cheque more than 15 miles from the place where made payable, £100.—For receiving the same in payment, £20.—For Bankers paying the same, £100.  
 For setting out wrong amount in Conveyance. On the Attorney, £500. On the purchaser, £50.  
 For selling Patent Medicines, &c., without a license, £20. Without a stamp, £10.  
 For printing a Newspaper without first making declaration as to the ownership, &c., £50 for every day such paper shall be printed or published.—For printing without stamps, on each paper issued, £20.  
 For neglecting or delaying to enter Pamphlets at the Stamp Office, or selling without paying duty when demanded, £20.  
 For Pawnbrokers taking pledges without a license, £50. For selling Plate without a license, £20. For selling plate without being duly stamped, £50.  
 For taking possession of the effects of any one deceased, without taking out Letters of Administration, £100.  
 For giving an unstamped receipt for money amounting to £5 and upwards, £10.  
 For giving a receipt on an insufficient stamp, £10.  
 For refusing to give a receipt when demanded for money paid, and amounting to £5, £10.  
 For selling playing cards without an Ace of Spades duly stamped, £10. For being in possession of unstamped playing cards, £5 per pack.



# THE ILLUSTRATED LONDON

EXTRA



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## INTRODUCTION.

IT is now five years since the First Volume of the ILLUSTRATED LONDON ALMANACK for the year 1845 was published; and this Volume is the fifth of the series. We avail ourselves of the opportunity which the occasion affords, of expressing our grateful acknowledgements to many Correspondents who have kindly suggested improvements &c.; and assure them that their several wishes have been attended to, as far as our space affords. This Volume will be found to contain fully the usual variety of information.

The ILLUSTRATIONS heading the CALENDARS are from the pencil of RICHARD DOYLE, Esq., and are engraved by DALZIEL.

The CALENDAR and SECOND PAGE of every Month, as well as all relating to Astronomy, Meteorology, and Science, have been under the superintendence of JAMES GLAISHER, Esq., F.R.A.S., and of the Royal Observatory at Greenwich.

The ILLUSTRATIONS on the THIRD and FOURTH PAGES of every Month are from the pencil of B. FOSTER, Esq., and engraved by VIZITELLI.

The WHOLE OF THE MATTER CONTAINED IN THE THIRD AND FOURTH PAGES of every Month is from the very able pen of the well-known writer on our Country Scenes, &c., THOMAS MILLER, Esq.

The remarks upon GARDENING are from the well-known Authoress, Mrs. LONDON; and the DOMESTIC HINTS are by M. SOYER.

We deem it unnecessary to repeat the explanations which we have already given in the Introduction to the preceding Volumes, as they apply equally well to this; and shall, therefore, only notice the additional explanations required by the additional information.

CALENDARIAL PAGES.—The time the Sun south is given every day, in common clock time, or the time a watch or clock should shew, when the Sun is on the meridian or due south. In preceding Volumes these numbers were given under the head of "Equation of Time;" and they can be used as directed in those Volumes, by considering that "After 12 o'clock" is equivalent to Add, and "Before 12 o'clock" is equivalent to Subtract.

The altitudes of the Sun and Moon, when due South at London, whose latitude is 51½°, are given every day. These numbers will answer equally well for any other place, by taking into account the difference of latitude between London and that place. At all places whose latitude is the same as at London, no alteration is needed; at those places situated N. of London, the numbers are to be decreased; and at places situated S. of London, they are to be increased. Thus the latitude of Edinburgh is 56½° nearly, being 4½° nearly N. of London; and if the numbers in this Almanack be diminished by 4½°, they would give the altitudes of the Sun and Moon above the horizon, when they are on the meridian of Edinburgh.

### THE THERMOMETER.

This instrument was invented about the beginning of the 17th century, and is still one of the most important instruments used in Natural Philosophy. By its means is ascertained that all bodies, on being heated, increase in volume, in a different proportion for each. The change is scarcely visible in solid bodies, and they, as well as liquids, expand unequally by equal increments of heat. Mercury approaches more nearly to equality in its rate of expansion, and remains liquid through a larger range of temperature, and is, therefore, justly preferred to water, oil, alcohol, &c., for thermometric purposes. A common thermometer is a tube of very small diameter, terminating at one of its ends by a cylindrical reservoir, so that very minute expansions of the mercury in the reservoir or bulb may be rendered perceptible. In order to obtain the value of these variations, a graduated scale is fixed along the tube. These scales, unfortunately, are different in different countries—to be spoken of presently. In order, however, that each observer may trace these divisions himself, it was necessary that two points of invariable temperature should be determined; and after a long time, and many attempts, it was found that the temperatures of water just freezing and water boiling were always the same. Both these points, however, were long disputed; and even late in last century it was believed that water at Naples began to freeze when the thermometer was 10 degrees above the freezing point, as shewn by a thermometer constructed in England by the directions of the Royal Society (see Dr. Cuyll's papers in the "Philosophical Transactions," No. 424, page 336; No. 430, page 189; No. 434, page 407, 408). The fixedness of the freezing point was at last established, and the erroneous idea was abandoned, that the further north, the greater degree of cold it took to freeze water. The subject occupied the attention of M. Amontons (see Mémoires de l'Académie, 1702, page 204, &c.), Mr. Boyle (see his Experiments on Cold), Dr. Halley, Newton, Dr. Derham, &c., and ultimately the fixedness of the boiling point of water was determined, by taking into account the varying pressure of the atmosphere. Thus this beautiful instrument was perfected.

Thermometers used for meteorological researches are wholly surrounded by the atmosphere, and therefore the mercury in both the stem and bulb are affected by the temperature of the air. The bulbs of those used for chemical purposes are generally only plunged into the liquid. The portion of the stem not immersed in the liquid is not influenced by the heat; and, therefore, the scales of both meteorological and chemical thermometers ought to be graduated differently: the former should be totally immersed in boiling water, whilst the bulb of the latter only should be so immersed, on determining the values of their scales.

At the Royal Observatory, Greenwich, several thermometers have been read at every even hour, both night and day, during the years 1841 to 1847, excepting on Sundays, Good Fridays, and Christmas-days; and the following are the monthly values of the temperature of the air, as compiled from the published volumes of the Greenwich Observations, and the Registrar-General's Reports:—

MONTHLY MEAN TEMPERATURE OF THE AIR AT GREENWICH.

MONTHS.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
January ....	Deg. 33.6*	Deg. 32.9	Deg. 39.9	Deg. 39.1	Deg. 38.3	Deg. 43.7	Deg. 37.0
February ....	35.3	40.8	36.0	35.2	32.7	43.9	35.5
March ....	46.2	44.9	42.9	41.5	35.2	43.3	41.4
April ....	47.0	45.2	47.1	51.7	46.3	47.1	45.3
May ....	56.8	53.2	52.2	52.9	49.4	54.6	56.4
June ....	56.4	62.9	56.3	60.7	60.7	65.2	58.0
July ....	57.8	60.2	60.9	61.4	59.8	64.5	65.4
August ....	60.5	65.4	62.1	57.7	57.3	63.2	62.1
September ..	58.1	56.4	59.5	56.9	53.6	60.1	54.3
October ....	48.8	45.4	48.0	49.5	50.2	50.5	52.9
November ...	42.7	42.8	43.8	41.0	45.8	46.0	46.9
December ...	40.5	45.0	43.9	33.0	41.7	32.9	42.8

The mean temperatures for the years 1841 to 1847 are 48.7°, 49.6°, 49.4°, 48.6°, 47.6°, 51.3°, and 49.5° respectively.

The following table shows the highest observed temperature in each month:—

MONTHS.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
January ....	Deg. 53.0	Deg. 46.8	Deg. 57.0	Deg. 53.7	Deg. 51.3	Deg. 55.3	Deg. 52.7
February ....	54.6	53.2	51.9	50.4	48.5	62.3	55.0
March ....	66.9	60.5	63.7	60.2	59.4	58.0	64.2
April ....	76.5	73.7	70.8	74.9	70.3	63.0	63.8
May ....	82.8	74.7	69.5	77.4	68.2	84.3	86.2
June ....	78.5	87.4	79.3	87.6	86.0	91.1	80.4
July ....	76.0	78.8	89.8	87.4	83.3	92.3	89.0
August ....	79.6	90.5	82.8	75.4	77.8	92.0	87.3
September ..	79.6	75.8	79.9	78.0	73.5	86.4	72.5
October ....	64.6	60.9	70.4	67.4	67.6	67.7	73.2
November ...	58.3	55.9	57.5	58.1	59.6	61.5	66.3
December ...	53.9	58.2	54.7	49.3	55.5	49.9	59.5

\* It will be borne in mind that in reading these numbers the figure to the right of the point shows the number of tenth parts of one degree; therefore, the number ranging with January, 1841, is to be read 35 degrees, and 6 tenths of a degree, and so for all the other numbers.

The following table shows the lowest observed temperature every month:—

MONTHS.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
January ....	Deg. 4.0	Deg. 23.2	Deg. 24.0	Deg. 18.8	Deg. 24.4	Deg. 29.4	Deg. 23.0
February ....	12.4	26.4	20.3	20.0	7.7	26.9	10.2
March ....	29.5	29.9	26.5	24.1	13.1	26.5	17.9
April ....	31.8	28.0	27.2	33.4	29.5	33.3	27.0
May ....	41.2	36.4	37.3	33.9	34.4	38.3	36.0
June ....	40.3	44.7	42.9	43.4	43.8	49.4	41.0
July ....	41.3	45.5	44.5	47.1	41.6	49.1	45.4
August ....	45.5	47.5	47.2	42.8	43.2	47.5	42.9
September ..	36.6	41.1	34.0	34.8	33.4	39.2	32.0
October ....	32.2	28.3	28.5	30.8	31.4	35.0	33.0
November ...	22.6	31.1	27.4	27.4	29.1	23.4	24.5
December ...	24.3	30.8	25.6	21.1	28.0	18.8	23.0

For the other Meteorological elements belonging to an English year, we refer to the article on Meteorology in last year's Almanack, and to the Eighth Annual Report of the Registrar-General, recently published.

### ON THE GRADUATION OF THE SCALES OF THERMOMETERS.

The graduation of Fahrenheit is used by the English; that of Reaumur by the German; that of Celsius by the French, calling it *thermometre centigrade*; and that of De Lisle by the Russians. The following are the readings for the freezing and boiling points of water upon those scales:—

	Fahr.	Reaumur.	Centigrade.	De Lisle.
Freezing points	32°	0°	0°	150°
Boiling points	212°	80°	100°	0°

Therefore, the number of degrees included between the freezing and boiling points of water, in Fahrenheit's scale, is 180°; in Reaumur's, 80°; in the centigrade, 100°; and in De Lisle, 150°. So that 9° of Fahrenheit, 4° of Reaumur, 5° centigrade, and 7½° of De Lisle are equal to each other. One degree upon Fahrenheit's scale is therefore the smallest, and one on that of Reaumur's is the largest.

The division "0°" on all the scales is called Zero; and the degrees graduated below this point are called *minus*, and have the minus sign (—) affixed to them.

In the Reaumur and centigrade scales, whose Zeros are at the freezing point of water, great care is necessary to be paid, to prevent the readings below Zero being mistaken for those above.

Different countries, adopting these different scales, cause a great deal of trouble; and is a fruitful source of error in comparing the temperature of different places, as registered by these differently graduated instruments. It is much to be desired, that all nations would use one and the same scale; but there is no hope of this being done.

As these different scales exist, it is desirable to have a ready means of converting a reading of one of these scales into its equivalent reading in another; and this may be done by the following rules:—

To reduce Fahrenheit's scale to Reaumur's, when the reading is above 32°.—Take 32° from the reading, multiply the difference by 4, and divide the product by 9.

To reduce Fahrenheit's scale to Reaumur's, when the reading is below 32°.—Take the reading from 32°, multiply the difference by 4, divide the product by 9, and affix the minus sign (—).

To reduce Reaumur's scale to that of Fahrenheit, when the reading is above the freezing point.—Multiply the reading by 9, divide the product by 4, and add 32° to the quotient.

To reduce Reaumur's scale to that of Fahrenheit, when the reading is below the freezing point.—Multiply the reading by 9, divide the product by 4, and take the quotient from 32°.

To reduce Fahrenheit's reading to Centigrade, when the reading is above the freezing point.—Take 32° from the reading, multiply the difference by 5, and divide the product by 9.

To reduce Fahrenheit's reading to Centigrade, when the reading is below the freezing point.—Take the reading from 32°, multiply the difference by 5, divide the product by 9, and affix the minus sign (—).

To convert the readings of the Centigrade scale into those of Fahrenheit.—Proceed exactly as in the case of Fahrenheit into Reaumur, except using 5 instead of 4.

To reduce Reaumur's scale to that of the Centigrade.—Multiply by 5, and divide the product by 4.

To reduce the Centigrade scale to that of Reaumur.—Multiply the reading by 4, and divide the product by 5.

As the French tables and observations of temperature are those which most frequently come under our notice, it is desirable that a simple mental calculation should suffice. The following rule is the one we use to convert, in a moment, all readings of the centigrade scale into their equivalent values in Fahrenheit's scale; viz. double the centigrade degrees, and deduct one-tenth of the product, adding 32° if the temperature is above the freezing point, or subtracting the product from 32° if below.



## ON THE CALENDAR.

THE PRINCIPAL ARTICLES OF THE CALENDAR,  
FOR THE YEAR OF OUR LORD 1849.

	Gregorian, or New Calendar	Julian or Old Calendar
Dominical Letters	G	B
Golden Number	7	7
Roman Indiction	7	7
Solar Cycle	10	10
Epact	6	17

(For remarks upon these articles, see the Almanack for the year 1847.)

## CORRESPONDENCE OF THE YEAR 1849 WITH ANCIENT ERAS.

Being, till September 16th, the latter part of the 5609th, and from September 17th the beginning of the 5610th year since the creation of the world, according to the Jews.

Being the 6562nd year of the Julian Period.

Being the 2602nd year since the Foundation of Rome (according to Varro).

Being the 2596th year since the era of Nabonassar, which has been assigned to Wednesday, the 26th of February, of the 3967th year of the Julian Period, which corresponds, according to chronologists, to the 747th, and, according to astronomers, to the 746th year before the birth of Christ.

Being the 2625th year of the Olympiads, or the first year of the 657th Olympiad will begin in July, 1849, if we fix the era of the Olympiads at 775 years before Christ, or at or about the beginning of July of the year 3938 of the Julian Period.

Being the latter part of the 1265th, and the beginning of the 1266th year (of twelve lunations) since the Hegira, or flight of Mahomet, which it is generally supposed took place on the 18th of July, in the year 622 of the Christian era. The year 1265 commenced on the 27th of November, 1848, and ends the 16th of November, 1849.

## CALENDAR OF THE JEWS FOR THE YEAR 1849.

5609.	1848.	NEW MOONS AND FEASTS.
Tebeth .. 1	December .. 26	Rosh Hodesh, or New Moon
Tebeth .. 10	January .. 4	Fast: Siege of Jerusalem
Schebat .. 1	" .. 24	
Adar .. 1	February .. 23	
" .. 13	" .. 7	Fast of Esther
" .. 14	" .. 8	Feast of Purim
" .. 15	" .. 9	Schuschan Purim
Nisan .. 1	" .. 24	
" .. 15	April .. 7	Passover begins*
" .. 16	" .. 8	Second day*
" .. 21	" .. 13	Seventh day*
" .. 22	" .. 14	Passover ends*
Ijar .. 1	" .. 23	
" .. 18	May .. 10	Lag Beomer
Sivau .. 1	" .. 22	
" .. 6	" .. 27	Pentecost Holidays, Feast of Weeks*
" .. 7	" .. 28	Second day *
Tamuz .. 1	June .. 21	
Ab .. 17	July .. 7	Fast: Seizure of the Temple by Titus*
" .. 9	" .. 28	
Elul .. 1	August .. 19	Fast: Destruction of the Temple*
" .. 7	" .. 25	Dedication of the Walls by Nehemiah
" .. 17	September .. 4	Expulsion of the Greeks
Tisri .. 1	" .. 17	Feast for the New Year*
" .. 2	" .. 18	Second Feast for the New Year*
" .. 3	" .. 19	Fast of Gedaliah
" .. 10	" .. 26	Fast of the Reconciliation or Atonement*
" .. 15	October .. 1	Feast of the Huts or Tabernacles*
" .. 16	" .. 2	Second Feast of the Tabernacles*
" .. 21	" .. 7	Feast of Palms or Branches*
" .. 22	" .. 8	End of the Hut, or Congregation Feast*
" .. 23	" .. 9	Rejoicing for the discovery of the Lord*
Marchesvan .. 1	" .. 17	
Kislev .. 1	November .. 16	
" .. 25	December .. 10	Consecration of the Temple
Tebeth .. 1	" .. 16	
" .. 10	" .. 25	Fast for the Siege of Jerusalem

The Anniversaries marked with an asterisk (\*) are to be strictly observed.

The Jewish Year generally contains 354 days, or 12 Lunations of the Moon; but, in a cycle of 19 years, an intercalary month (Veadar) is 7 times introduced, for the purpose of rendering the average duration of the year quite or nearly correct.

## MOHAMMEDAN CALENDAR FOR THE YEAR 1849.

Hegiri; 1265,	Moharrem 1	(New Year)	falls on November 27, 1848.
" "	Safar 1	"	December 27, "
" "	Rebi-el-Awwel 1	"	January 25, 1849.
" "	Rebi-el-Acher 1	"	February 24, "
" "	Dschemâdi-el-Awwel 1	"	March 25, "
" "	Dschemâdi-el-Acher 1	"	April 24, "
" "	Redschebl 1	"	May 23, "
" "	Schâban 1	"	June 22, "
" "	Ramadan 1	{ Month of Abstinence	July 21, "
" "	"	{ observed by the Turks }	"
" "	Schewâl 1	"	August 20, "
" "	Dsch'el-Kade 1	"	September 18, "
" "	Dsch'el-hedsché 1	"	October 18, "
Hegiri; 1266.	Moharrem	"	November 17, "
" "	Safar 1	"	December 17, "

(For remarks on the Mohammedan year, see the Almanack of last year.)

## SIGNS OF THE ZODIAC.

Spring Signs {	1 ♈ Aries	Autumn Signs {	7 ♎ Libra
	2 ♉ Taurus		8 ♏ Scorpio
	3 ♊ Gemini		9 ♐ Sagittarius
Summer Signs {	4 ♋ Cancer	Winter Signs {	10 ♑ Capricornus
	5 ♌ Leo		11 ♒ Aquarius
	6 ♍ Virgo		12 ♏ Pisces

## FIXED AND MOVEABLE FESTIVALS, ANNIVERSARIES, &amp;c.

Epiphany .. .. .	Jan. 6	Pentecost—Whit Sunday ..	27
Martyrdom of King Charles I. ..	30	Restoration of King Chas. II.	29
Septuagesima Sunday .. .. .	Feb. 4	Trinity Sunday .. .. .	June 3
Quinquagesima—Shrove Sun. ..	18	Corpus Christi .. .. .	7
Ash Wednesday .. .. .	21	Accession of Queen Victoria ..	20
Quadragesima—1st Sunday ..	25	Proclamation .. .. .	21
in Lent .. .. .	25	St. John Baptist—Midsum- ..	24
St. David .. .. .	March 1	mer Day .. .. .	"
St. Patrick .. .. .	17	Birth of Dowager Queen ..	Aug. 13
Annunciation—Lady Day ..	25	Adelaide .. .. .	"
Palm Sunday .. .. .	April 1	St. Michael—Michaelmas Day ..	Sep. 29
Good Friday .. .. .	6	Gunpowder Plot .. .. .	Nov. 5
EASTER SUNDAY .. .. .	8	Birth of Prince of Wales ..	" 9
Low Sunday .. .. .	15	Birth of Prince Albert ..	26
St. George .. .. .	23	St. Andrew .. .. .	30
Rogation Sunday .. .. .	May 13	1st Sunday in Advent ..	Dec. 2
Ascension Day—Holy Thursday ..	17	St. Thomas .. .. .	" 21
Birth of Queen Victoria ..	24	Christmas Day .. .. .	25

## BEGINNING OF THE SEASONS, 1849.

		D. H. M.
The Sun enters	Capricornus (Winter begins)	1848, Dec. 21 4 0
"	Aries (Spring begins)	1849, March 20 5 13
"	Cancer (Summer begins)	" June 21 2 8
"	Libra (Autumn begins)	" Sept. 22 16 3
"	Capricornus (Winter begins)	" Dec. 21 9 42

## DURATION OF THE SEASONS, AND THE YEAR 1849.

The Sun will be in the	Winter signs	89 Days	1 Hour	13 Minutes
"	Spring ..	92 ..	20 ..	55 ..
"	Summer ..	93 ..	13 ..	55 ..
"	Autumn ..	89 ..	17 ..	39 ..
The Sun will be on the	" D. H. M.			
Equator and going N. ..	1849, March 20 5 13,	his declination being	0 0 0	
The Sun will reach his	1849, June 21 2 8,	his N declin. being	23 27 23	
greatest N. declination	1849, Sept. 22 16 3,	his declination being	0 0 0	
The Sun will be on the	1849, Dec. 21 9 42,	his S. declin. being	23 27 23	
Equator, and going S.	The Sun will be North of the Equator (Spring and Summer)	186 days		
The Sun will be at his	10 hours 50 minutes.			
greatest S. declination	The Sun will be South of the Equator (Winter and Autumn)	178 days 18 hours		
The Sun will be North of the Equator (Spring and Summer)	52 minutes.			
The length of the tropical year, commencing at the Winter Solstice 1848, and terminating at the Winter Solstice 1849, is 365 days 5 hours 42 minutes.				

ASTRONOMICAL SYMBOLS AND ABBREVIATIONS  
EXPLAINED.

☉ The Sun	☿ Iris	° Degrees
☾ New Moon	♄ Ares	' Minutes of Arc
☾ First Quarter of Moon	♊ Flora	" Seconds of Arc
☾ Full Moon	♋ Metis	D. Days
☾ Last Quarter of Moon	♌ Jupiter	H. Hours
☿ Mercury	♍ Saturn	M. Minutes of Time
♀ Venus	♎ Uranus	S. Seconds of Time
♂ ♂ The Earth	♏ Neptune	☉ Sunday
♂ Mars	♐ Ascending Node	☾ Monday
♂ Vesta	♑ Descending Node	☾ Tuesday
♂ Juno	N. North	☾ Wednesday
♀ Pallas	E. East	☾ Thursday
♀ Ceres	S. South	☾ Friday
☾ Hebe	W. West	☾ Saturday

The Symbol ☿ Conjunction, or having the same Longitude or Right Ascension.  
 " ☐ Quadrature, or differing 90° in Longitude or Right Ascension.  
 " ☿ Opposition, or differing 180° in Longitude or Right Ascension.

(For explanation of Astronomical terms, see Almanack of last year.)

## LAW TERMS, 1849.

As Settled by Statutes 2 George IV., 1 William IV., cap. 70, s. 6 (passed July 23rd, 1830), and 1 William IV., cap. 3, s. 2 (passed December 23rd, 1830).

Hilary Term .. .. .	Begins January 11	Ends January 31
Easter Term .. .. .	" April 15	" May 8
Trinity Term .. .. .	" May 22	" June 12
Michaelmas .. .. .	" Nov. 2	" Nov. 26

## UNIVERSITY TERMS, 1849.

## OXFORD.

TERMS.	BEGINS.	ENDS.
Lent .. .. .	January 15	March 31
Easter .. .. .	April 18	May 26
Trinity .. .. .	May 30	July 7
Michaelmas .. .. .	October 10	December 17

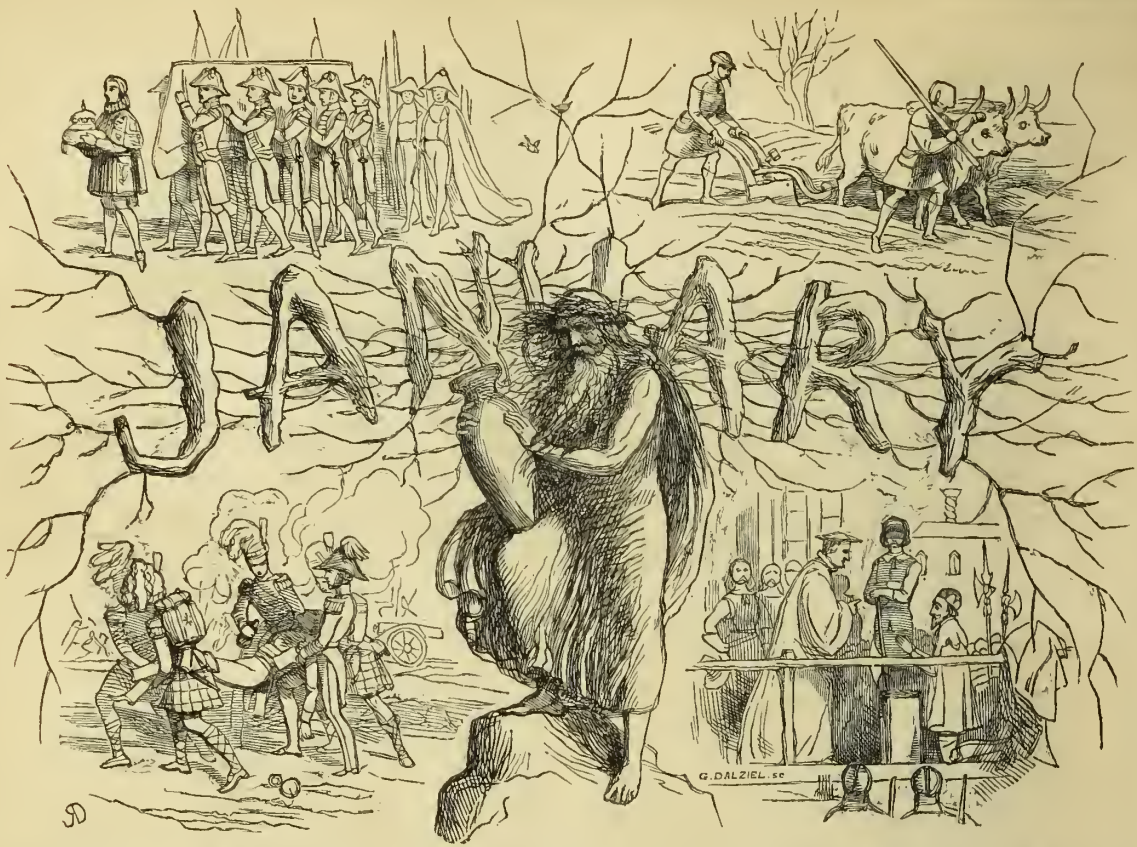
The Act, July 3.

## CAMBRIDGE.

TERMS.	BEGINS.	DIVIDES.	ENDS.
Lent .. .. .	Jan. 13	Feb. 20, Noon	March 30
Easter .. .. .	April 18	May 27, Midnight	July 6
Michaelmas .. .. .	Oct. 10	Nov. 12, Midnight	Dec. 16

The Commencement, July 3.





M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.						MOON.						DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE.				Day of the Year.
			SOUTHS.						SOUTHS.						Before Sunrise		Moon's Age.	After Sunset.		Morn'g.	Afternoon		
			Rises.	After 12 o'clock.	Height above horizon.	Sets.	Rises. Morning.	After- noon.	Height above horizon.	Sets. Afternoon	O'Clock. 2h. 4h. 6h.	O'Clock. 6h. 8h. 10h.											
1	M	<i>Circumcision,</i> being the eighth day after the nativity of Jesus Christ, who was circumcised when the eight days were accom- plished, according to the law of the Jews.	H. M.	8 8	3 58	15 1/2	4 0	H. M.	11 28	5 32	37 1/2	11 48		H. M.	6 10	6 35	1						
2	Tu		8 8	4 26	15 1/2	4 1	11 54	6 22	42	Morning.	6 58	7 25		2									
3	W		8 8	4 54	15 3/4	4 2	Afternoon	7 14	46 1/2	1 1	7 55	8 25		3									
4	Th		8 8	5 21	15 3/4	4 3	0 55	8 9	50 1/2	2 18	9 2	9 36		4									
5	F		8 8	5 48	16	4 4	1 32	9 6	53 3/4	3 34	10 15	10 54		5									
6	S	<i>Epiphany. Tw.D</i>	8 7	6 14	16	4 6	2 17	10 6	55 3/4	4 50	11 30	At Midnight.	6										
7	S	<i>1st S. aft. EPIPH.</i>	8 7	6 40	16 1/4	4 7	3 12	11 7	56 1/2	6 0	No Tide.	0 32	7										
8	M	<i>Lucian. Pl. Mon.</i>	8 7	7 6	16 1/4	4 8	4 14	Morning.	55 3/4	7 2	1 0	1 30	8										
9	Tu	[burnt 1838	8 6	7 31	16 1/2	4 9	5 24	0 8	53 3/4	7 56	1 55	2 10	9										
10	W	<i>Royal Exchange</i>	8 6	7 55	16 1/2	4 10	6 36	1 7	50 3/4	8 41	2 45	3 10	10										
11	Th	<i>Hilary Term beg.</i>	8 5	8 19	16 3/4	4 11	7 48	2 2	47 1/2	9 17	3 35	3 55	11										
12	F	<i>Polaris souths at 5h. 37m. P.M.</i>	8 4	8 42	17	4 13	9 0	2 54	43	9 48	4 17	4 40	12										
13	S	<i>Camb. Term beg.</i>	8 3	9 5	17	4 14	10 8	3 43	39	10 15	5 0	5 20	13										
14	S	<i>2d S. aft. EPIPH.</i>	8 2	9 27	17 1/4	4 16	11 16	4 29	34 3/4	10 39	5 40	6 0	14										
15	M	<i>Ox. Term begins</i>	8 2	9 48	17 1/2	4 18	Morning.	5 14	30 3/4	11 4	6 20	6 45	15										
16	Tu	<i>Alpha Arctis souths at 6h. 15m. P.M.</i>	8 1	10 8	17 1/2	4 19	0 20	5 58	27 1/4	11 27	7 5	7 25	16										
17	W	<i>Alpha Ceti souths at 7h. 6m. P.M.</i>	8 0	10 28	17 3/4	4 21	1 23	6 42	24 1/4	11 53	7 50	8 20	17										
18	Th	<i>Prisca. Old T. D.</i>	7 59	10 48	18	4 22	2 26	7 26	21 3/4	Afternoon	8 55	9 30	18										
19	F	<i>Copernic. b. 1472</i>	7 58	11 6	18 1/4	4 24	3 26	8 11	20	0 51	10 5	10 40	19										
20	S	<i>St. Fabian</i>	7 57	11 24	18 1/2	4 26	4 23	8 58	19	1 28	11 15	11 50	20										
21	S	<i>3d S. aft. EPIPH.</i>	7 56	11 41	18 3/4	4 27	5 18	9 45	19	2 11	No Tide.	0 20	21										
22	M	<i>St. Vincent</i>	7 55	11 57	19	4 29	6 8	10 34	19 3/4	3 1	0 44	1 7	22										
23	Tu	<i>Aldebaran souths at 8h. 15m. P.M.</i>	7 54	12 13	19 1/4	4 31	6 52	11 24	—	3 59	1 28	1 50	23										
24	W	<i>Pitt died 1806</i>	7 53	12 28	19 1/2	4 33	7 34	Afternoon	21 1/2	5 2	2 10	2 27	24										
25	Th	<i>Convers. St. Paul</i>	7 51	12 42	19 3/4	4 35	8 8	1 3	24 1/2	6 4	2 45	3 5	25										
26	F	<i>Capella souths at 8h. 42m. P.M.</i>	7 50	12 55	19 3/4	4 37	8 45	1 52	27 3/4	7 14	3 20	3 40	26										
27	S	<i>Sirius souths at 10h. 10m. P.M.</i>	7 48	13 7	20	4 39	9 7	2 41	31 3/4	8 25	3 57	4 15	27										
28	S	<i>4th S. aft. EPIPH.</i>	7 47	13 19	20 1/4	4 40	9 34	3 20	36	9 37	4 35	4 50	28										
29	M	[Charles I.	7 45	13 29	20 3/4	4 41	10 1	4 20	40 1/2	10 51	5 10	5 30	29										
30	Tu	<i>Martyr. of King</i>	7 44	13 39	21	4 43	10 28	5 10	45	Morning.	5 50	6 10	30										
31	W	<i>Hilary Term ends</i>	7 43	13 48	21 1/4	4 45	10 59	6 3	49	0 4	6 35	7 0	31										







# JANUARY.—PLOUGH MONDAY.

THE DESCRIPTIONS OF THE TWELVE MONTHS BY THOMAS MILLER.



He ploughs the hills and ploughs the dals,  
He ploughs through field and fallow  
Who does not wish the Ploughman well,  
Is but a sorry fellow.—*Old Ballad.*

MANY of the old games, and masques, and mummings, which were in accordance with the simple habits of our homely forefathers, have long since passed away. A few only remain, out of those which it was their delight and amusement to witness; and even these are shorn of their ancient splendour; for, though still picturesque, they have a faded look, and seem no more in keeping with the manners and customs of the present day, than the murrey-coloured coats, and slashed doublets, and trunk hose would be, if dragged forth from the old oaken recesses in which they have lain, disturbed only by the moth for many a long year, and worn again by the present generation. Such as have survived the stern mandates of Cromwell, lived through the Restoration of Charles, and withstood all the stormy revolutions which at last settled down, when the House of Hanover was securely seated upon the throne, we shall occasionally glance at in our descriptions of the months; for they are still within the ancient boundary-line which every year is rapidly cutting up, and into the opening of which the steam-boats and railroads are entering, and overturning nearly all that is picturesque and primitive, that has for centuries given such life and beauty to the rural landscapes of England.

January, with its short days and long nights, though it still comes as of old, with frost, and snow, and cold, and darkness, brings with it once a year its merry Plough Monday, and in a few out-of-the-way country places the village street is all astir with the little crowd of gaping rustics, just as it was, except for the changes in costume and architecture, three or four centuries ago. The old fiddler, who dates every incident in his life from the many country wakes, feasts, and statutes he has attended, is again in requisition, although the snow lies deep upon the ground; the drum, which only sounds at the club feast, or on such occasions as these, is again dragged from its hiding-place; and sometimes the old-fashioned pipe and tabor, which have been blown and beaten by the descendants of the same family, through many generations, are called in to awaken the sleeping echoes of winter. You hear the noisy group long before they heave into sight along the winding lane, engirded with its high and leafless hedges—green only where the ivy trails, or the prickly holly shoots up; they are announced by the loud huzzas which rend the air, and are followed by all the loiterers who have congregated from the villages for miles around.

Heralding the way, come the healthy-looking round chubby-faced country lads,



waving their hats and caps, regardless of the cold; their heavy boots crunching the snow at every step, and their hard naked hands nearly blue or purple through exposure to the frosty air. They are followed by pipe and tabor, fiddle and drum. Then appears a strong healthy-looking ploughman, with his heavy ankle boots, worsted stockings, stout corduroy breeches, and thick plush waistcoat, over which he wears a gown, borrowed for the occasion of Nanny or Molly, and the skirt of which he generally tucks up under his waistcoat until he enters the village, to keep it from dragging; and thus arrayed, with bonnet and cap on head, he comes dancing along, about as gracefully as a brown shaggy bear, and rattling the money-box, which he carries in his hand, at every step, for he is the Betsy, so famous in the olden time as the chief *figurante* on a Plough Monday. Next follows the plough, drawn by ten or a dozen stout countrymen, by ropes either thrown over their shoulders or fastened around their waists, while their hats or white smock-frocks are decorated with ribbons of almost all colours, amid which are placed bunches of ears of corn; he who guides the plough being ornamented like another Ceres, and, doubtless, like her, intended to represent the emblem of plenty. Next appear the threshers with their flails, and reapers with their hooks, waggoners with long whips dangling over their shoulders; bringing before the eye the whole procession of harvest, from the plougher, the sower, the reaper, the thresher, down to the dusty miller, who has covered himself with an extra coat of meal for the occasion, and has come to take toll out of the proceeds of the day.

While writing, the scene rises before the eye as distinctly as when in our boyish days, above twenty years ago, we stood a happy spectator, regardless of Winter—

Cloathed all in freeze;  
Chattering his teeth for cold, that did him chill;  
Whilst on his hoary beard his breath did freeze.—SPENSER.

We again see the big farm-house, with its ivy-covered porch, in which the jolly farmer, with his top-boots, blue coat, and pipe in mouth, stood beside his buxom and merry-faced wife, looking on with as much apparent pleasure as the little children, who rested with their hands on the top-most and frost-covered bar of the gate which they had climbed. What he dropped into "Betsy" the ploughman's box, fell with a heavy sound, causing the bonneted bearer to rattle it with extra force, and to cut a variety of most unlady-like capers. Then came the great brown jug, piled high with foaming mighty ale, which seemed quite a load even for the strong arms of the stout dairymaid who bore it; little Jack, the farmer's boy, followed with large drinking-horns, and a basket filled with such huge lumps of bread and cheese as showed that the worthy giver knew right well how to measure a ploughman's appetite. Then pipe and tabor, and drum and violin, were mute for several minutes, and all the sound heard, excepting an occasional huzza, was like that of a dozen horses crunching and feeding together. The jug was again refilled and emptied; and so they passed on from house to house until they at last came to one where a noted miser resided. They knocked at the door—there was no answer. "Betsy" rattled his box louder than ever, but no one came; drum, tabor, pipe, and violin thundered and screamed in vain; buzza after huzza was sent forth by the assembled crowd, but excepting a stealthy peep from behind the blind, and which would have cost the waiting-maid her place had she been discovered by the old curmudgeon, no other sign of life appeared within. "Gee-ho! Come-up!" exclaimed the man who held the stilts or handles of the plough, and in a moment the deep bright shew was into the ground: backwards and forwards it went, cutting deeper, and the men pulling stronger at every furrow they made, until the whole lawn at the front of the miser's house lay brown, bare, and ridgy as a newly-ploughed field.

When the mischief was done the old miser made his appearance, and threatened the ploughman with law, imprisonment, transportation; but no one seemed to advocate his cause. It was an old custom too, to plough up the ground at the front of the doors of those who gave not "largess" on Plough Monday; nor do we remember a single instance of prosecution for the misdemeanour. Such abuses, however, we doubt not, have been instrumental in abolishing these old and useless customs. What we have here presented is a faithful portraiture of rural England only twenty years ago; and there are still, we believe, a few green quiet corners in our island, where Plough Monday is kept up in the present day. We have here preserved the outline of a faint and faded picture, the rich colouring of which began to decay from the very hour when Cromwell and his Roundheads shut up the ancient gallery of old English amusements. It was opened again at the restoration of Charles; but the damp and the mildew had settled down upon it. A new race of men had sprung up, and a mighty change, which is still advancing, began to show itself throughout the land—the merry England of our forefathers was growing into the working and thinking England in which we now live.

The race of yore,  
Who danced our infancy upon their knee,  
And told our marvellous boyhood legends store,  
Of their strange ventures happy'd by land or sea;  
How are they blotted from the things that be!—SCOTT.

Few, unless they are well versed in geology, would dream of the appearance which our island presented in those early years that have passed away unnumbered by man, but which have left traces of their existence beneath the hills and vallies we daily tread. The landscape, which at this season of the year is leafless, and sometimes buried in its winding-sheet of snow, was thousands of years ago adorned with flowers, and trees which now only blossom and ripen, and wave in the far-off sunny lands of the East. Then the huge hippopotamus wallowed in our rivers, and the mammoth and the mastodon shook those old (and ages ago buried) forests beneath their tread. In the excavations of railways, in the very heart of our ancient hills, and in the deep beds of our beautiful rivers, do we find the remains of these extinct monsters. The dam and its off-spring sometimes buried side by side, a convincing proof that here the young was once bred, lived, and died. Amid the giant ferns of this early world, which have dwindled down to the knee-deep bracken through which we now tread, did the striped and sabre-toothed tiger couch, ages before his angry growl ever fell upon any human ear. Then the great-cave bear went prowling about our island; and herds of wolves and jackals pursued the maned and shaggy lion through the forest fastnesses. The huge elk, whose remains have been discovered, and the span of whose antlers from the tip of each horn was above thirteen feet, fed upon our hills, and stooped down to drink by the sides of our rivers, in those undated ages; for the shadow of man had not as yet been mirrored upon the face of those waters. Birds, whose gaudy plumage is now only to be seen in tropical forests, then plumed themselves in the sunshine on the boughs of such trees as never again threw their green shadows over that deep-buried and untrodden soil. Then our island was houseless, our seas masterless, nor had the print of any human foot as yet indented the sand upon our shore. Such a knowledge as this, wherever we may wander, never causes us to feel solitary; to vary a few lines by Keats:

though  
Keen fitful gusts are whispering here and there,  
Among the bushes, half leafless and dry  
And stars look very cold about the sky,  
And we had many miles on foot to faice:

Yet felt we little of the cold bleak air,  
Or of the dead leaves rustling drearily;  
Of those silver lamps that burnt on high,  
Or of the distance from home's pleasant lair.

Wild, silent, and uninhabited have we found places which we have traversed in England during winter in our own day—the far-extending cliff country of Lincolnshire, backed by the high and villageless wold, that seemed in the distance to go climbing up until it was lost in the grey and leaden-coloured sky. On the huge table-lands which ascended, ledge above ledge, telling where for ages the locked-up waters had remained stationary, we have seen the snow lie white, deep, silent, and untrodden, just as it had been blown over the broad and shelterless vallies, and left there, height above height, like alp on alp. The flocks of sheep, that picked up a scanty subsistence in summer on the stony barriers of dried-up oceans, had been driven miles away by the herdsmen into the lowlands; and thus all along the ridges of those high and silent wolds no living object, excepting some solitary bird, was seen to move. Neither hedge, nor shed, nor fence were there on that high and heaving ridge of wild hills, nor aught which bore sign or imprint of the hand of man. The few naked trees that hung leaning over the steep precipice-like ledges, looked as if they had been washed there ages ago, and left motionless one above the other by the sudden subsiding of those mighty waters. The gathering night, and the blinding snow-storm, with the howling wind blowing full in his face, would even now make the stout heart of a stranger quail, if, unacquainted with the country, he found himself there alone in the dusky quiet of a cold brief January day.

Along the woods, along the moorish fens,  
Sighs the sad genius of the coming storm;  
And up among the loose disjunct cliffs,  
And fractured mountains wild, the brawling brook  
And cave presageful, and a hollow moan,  
Resounding long in listening fancy's ear.—THOMSON.

Descending from those heights, we came to the banks of old lonely rivers, whose waters were only ploughed by the keel of the fowler's boat, while he, stretched out at the bottom, glided in silence along, between the high armies of tall and tufted reeds, and sharp-edged water-fags, that glittered like scimitars through the hoar-frost; and tall naked rows of osiers whose stocks or roots were buried beneath the snow, until he arrived within shot of the whole flock of wild fowl, when, springing up on the sudden, like an apparition, bang went both his barrels in a moment, making a sudden plash upon the surface of the water, which the next minute was covered with the feathered bodies of the wounded and the slain. You saw the smoke rolling away like a silvery cloud above the heads of the tufted bulrushes—heard the echoes of his run die along the hill-side—just caught the low lapping of the water as it was disturbed by the motion of his boat—then, saving the wind that whistled over the frozen ridge and blew blackly through the naked willows, all again was still.

You wander along by the road-side spring, which is never frozen over, and see the little wagtail striding about, the very smallest of all our birds, which appears not to have its legs tied, which looks as if it scorned to go hopping along like many of the feathered race, but boldly lifts up one foot after the other, and struts, and looks around, as if it were marching at the head of a whole regiment of wagtails. True to the country in which he was bred, he disdains to number himself among the feathered gentry who hurry off, long before the approach of winter, to seek a warmer climate; but, like his companion the robin, he braves our severest seasons, and trusting to chance and his own industry, picks up his living as he best can, about spring-heads and water-courses, where a few insects are still to be found; and so between hunting for a living, sleeping, and amusing himself, he wies away the dull winter, until spring throws her primrose-coloured garment over the sky.

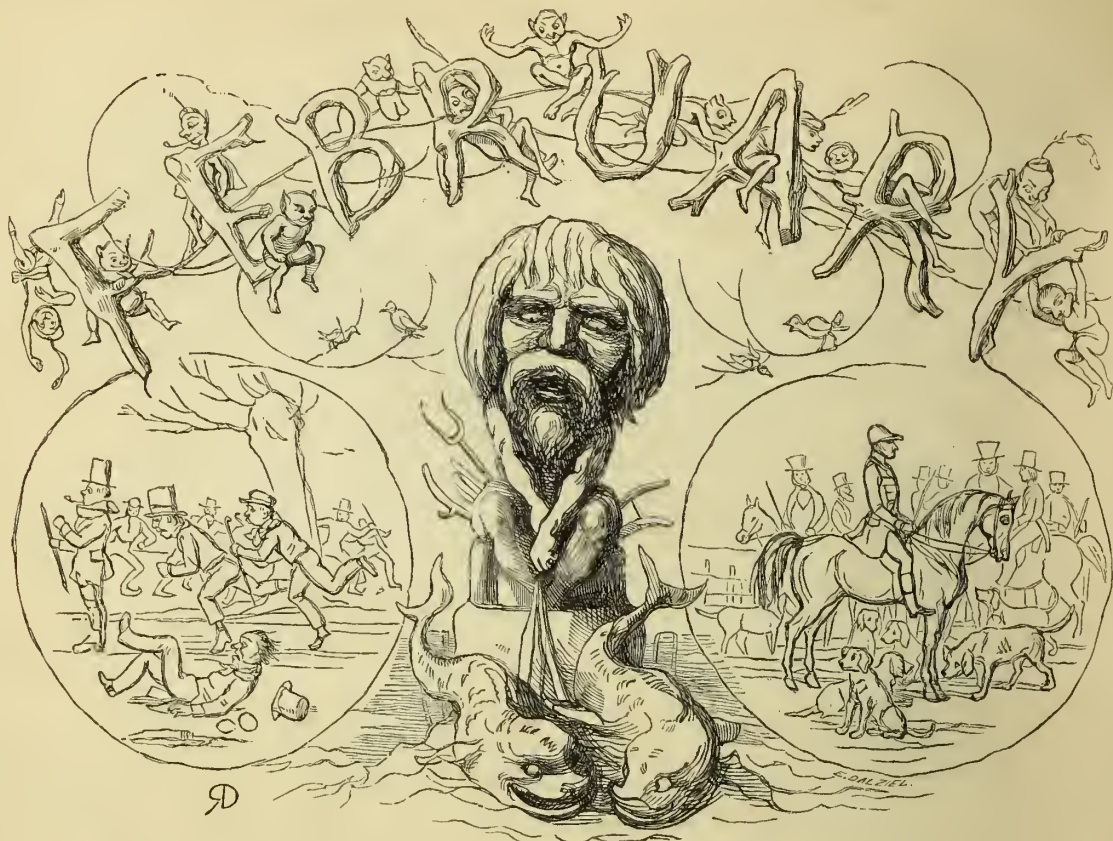
The only sound, except the wind, that appears to give a voice to the wintry landscape, is the murmuring of the river: when that is frozen over and silent, it seems as if the pulse of nature had ceased to beat—as if the last stir of life was motionless—earthed as in a grave; that Hope had at last sunk down in very despair—she who had so long

Patient with bow'd head silent stood,  
And on her golden elbow leant,  
And watch'd below the sleeping fowls,  
Where winter, 'mid the desirment,

Half-buried in the drifted snow,  
Lay sleeping on the frozen ground;  
Unheeding how the wind did blow,  
Bitter and bleak on all around.







M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT.					HIGH WATER at LONDON BRIDGE		Day of the Year.								
			SOUTHS.					SOUTHS.					Before Sunrise.		After Sunset.			Morning.	Afternoon									
			Rises.	After 12 o'clock.			Height above Horizon.	Sets.	Rises.	Afternoon.			Height above Horizon.	Sets.	O'Clock. 2h. 4h. 6h.	Moon's Age.	O'Clock. 6h. 8h. 10h.											
1	Th	Salmon Fishing begins	7	41	13	56	21 $\frac{1}{2}$	4	47	11	31	6	57	52 $\frac{1}{2}$	1	21							7	25	7	53	32	
2	F	Cand. Day	7	40	14	3	21 $\frac{3}{4}$	4	49	Afternoon		7	51	55	2	33								8	25	9	5	33
3	S	St. Blaize	7	38	14	10	22	4	50	1	0	8	53	56 $\frac{1}{2}$	3	43								9	45	10	25	34
4	S	SEPTUAGES. S.	7	36	14	16	22 $\frac{1}{2}$	4	52	1	57	9	52	56 $\frac{1}{2}$	4	48								11	10	11	45	35
5	M	St. Agatha	7	34	14	20	22 $\frac{3}{4}$	4	54	3	0	10	50	55	5	45								No Tide.	0	20	36	
6	Tu	[Sir R. Peel born, 1788]	7	32	14	24	23	4	56	4	11	11	47	52 $\frac{1}{2}$	6	33								0	52	1	20	37
7	W	Capella souths 7h. 50m. P.M.	7	30	14	27	23 $\frac{1}{4}$	4	58	5	24	Morning.	49		7	13								1	48	2	10	38
8	Th	Half-Quarter	7	29	14	30	23 $\frac{1}{2}$	5	0	6	37	0	40	45 $\frac{1}{2}$	7	45								2	35	3	0	39
9	F	Rigel souths 5h. 7m. P.M.	7	27	14	31	24	5	2	7	47	1	31	41	8	14								3	20	3	40	40
10	S	Q. Vic. mar. 1840	7	26	14	32	24 $\frac{1}{4}$	5	4	8	57	2	20	36 $\frac{3}{4}$	8	42								3	58	4	17	41
11	S	SEXAGESIMA S.	7	24	14	32	24 $\frac{1}{2}$	5	5	10	3	3	6	32 $\frac{3}{4}$	9	4								4	35	4	54	42
12	M	Beta Tauri souths 7h. 45m. P.M.	7	22	14	31	25	5	7	11	8	3	51	29	9	30								5	15	5	30	43
13	Tu	Castor souths 9h. 49m. P.M.	7	20	14	30	25 $\frac{1}{4}$	5	9	Morning.		4	35	25 $\frac{1}{2}$	9	54								5	50	6	5	44
14	W	St. Valentine.	7	18	14	28	25 $\frac{1}{2}$	5	11	0	11	5	20	22 $\frac{1}{2}$	10	21								6	23	6	40	45
15	Th	[Old Cand. D.]	7	16	14	25	26	5	13	1	12	6	5	20 $\frac{1}{2}$	10	50								7	3	7	25	46
16	F	Pollux souths 9h. 49m. P.M.	7	14	14	21	26 $\frac{1}{2}$	5	14	2	10	6	51	19 $\frac{1}{2}$	11	27								7	50	8	20	47
17	S	Alpha Orionis Souths at 7h. 57m. P.M.	7	12	14	17	26 $\frac{1}{2}$	5	16	3	7	7	38	19	Afternoon									9	0	9	40	48
18	S	QUINQUAGESIMA	7	10	14	12	27	5	18	3	59	8	26	19 $\frac{1}{2}$	0	53								10	20	10	55	49
19	M	[or SHROVE S.]	7	8	14	6	27 $\frac{1}{4}$	5	20	4	46	9	15	20 $\frac{3}{4}$	1	46								11	34	No Tide.		50
20	Tu	Shrove Tuesday	7	7	14	0	27 $\frac{3}{4}$	5	21	5	28	10	5	23	2	44								0	10	0	40	51
21	W	Ash Wednesday	7	5	13	53	28	5	23	6	7	10	55	26 $\frac{1}{4}$	3	50								1	0	1	24	52
22	Th	Great demonstra- tions, and barricades erected in Paris, 1848.	7	3	13	45	28 $\frac{1}{2}$	5	25	6	40	11	45	—	4	59								1	45	2	5	53
23	F	Revolution in Paris, 1848.	7	1	13	37	28 $\frac{3}{4}$	5	27	7	10	Afternoon	30		6	11								2	23	2	42	54
24	S	1st SUN. in LENT	6	59	13	28	29 $\frac{1}{4}$	5	29	7	37	1	25	34 $\frac{1}{2}$	7	25								3	0	3	20	55
25	S	[Quadragesima]	6	56	13	18	29 $\frac{1}{2}$	5	30	8	4	2	16	39	8	39								3	35	3	55	56
26	M	Alpha Hydre souths at 10h. 49m. P.M.	6	54	13	8	30	5	32	8	33	3	7	43 $\frac{1}{2}$	9	54								4	10	4	32	57
27	Tu	Regulus souths at 11h. 25m. P.M.	6	52	12	58	30 $\frac{1}{4}$	5	34	9	2	3	59	47 $\frac{3}{4}$	11	10								4	50	5	10	58
28	W		6	50	12	47	30 $\frac{1}{2}$	5	36	9	35	4	54	51 $\frac{1}{2}$	Morning.									5	30	5	52	59



## FEBRUARY.

**THE SUN** is in the sign Aquarius till the 18th, on which day, at 5h. 16m. P.M., he enters the sign Pisces (the Fishes). On the 1st day he is 93,644,000 miles from the Earth. He rises on the 1st, at 5° S. of E.S.E.; on the 11th, at the E.S.E.; and on the 28th, at 1½ S. of E. by S. He sets on the same days, respectively, at 4½ S. of W.S.W., near the W.S.W., and at 1½ S. of W. by S. points of the horizon. His time of southing, in common clock time, and his height in degrees at the same time, are shown every day on the opposite page.

He is Eclipsed on the 23rd; which Eclipse is annular, and visible in the North Pacific Ocean, but not visible here.

The Moon, on the 1st, passes from Cetus to Taurus; is in Taurus on the 2nd and 3rd; in Gemini on the 4th and 5th; in Cancer on the 6th; in Leo on the 7th, 8th, and 9th; in Virgo from the 10th to the 13th; in Libra on the 13th and 14th; in Ophiuchus on the 15th, 16th, and 17th; on the 18th she is moving on the boundaries of Aquila and Sagittarius; and in the latter constellation on the 19th; in Capricornus on the 20th; in Aquarius on the 21st, 22nd, and 23rd; in Pisces on the 24th; in Cetus on the 25th; moving on the boundaries of Pisces and Cetus on the 26th; in Cetus again on the 27th; and on the 28th passes into Taurus.

She rises after sunset and before sunrise, from the 7th to the 22nd, and after sunrise on the remaining days. She sets before sunrise till the 7th, and after sunset from the 23rd, and during the day from the 8th to the 22nd. For the actual times, see the opposite page.

She is on the Equator on the 10th and again on the 26th. Her time of southing, in common clock time, and her height in degrees at the same time, are given for every day on the opposite page.

She is near Jupiter on the 7th; Mars, on the 19th; Mercury, on the 23rd; Saturn, on the 24th; Uranus and Venus, on the 26th.

She is full on the 7th, and new on the 23rd. On the latter, day an Eclipse of the Sun takes place, but is invisible in Europe.

**MERCURY** is in the constellation Aquarius throughout the month.

He is an evening star till the 25th, and a morning star from the 26th. He rises after the Sun till the 17th, at the same time as the Sun on the 18th, and 35m. before the Sun on the last day. He sets on the 1st at 1h. 28m.; on the 5th, at 1h. 42m.; on the 11th, at 1h. 45m.; on the 12th, at 1h. 42m.; on the 20th, at 51m., after the Sun sets; and on the 25th, at 4m.; and on the last day, at 40m. before the Sun sets. He is, therefore, favourably situated for observation after the Sun sets till the 20th. He sets 2° N. of W.S.W., on the 1st; on the 10th, at W. by S.; and on the 17th, at 7½ S. of W.; and on the 26th, at W. by S. He is moving eastward among the stars from the 1st to the 13th; is stationary on the 14th; and is moving westward from the 15th to the 28th. On the 8th he is at

his greatest E. elongation; is near the Moon on the 23rd; and is in inferior conjunction with the Sun on the 24th.

**VENUS** is in the constellation Pisces throughout the month.

She is an evening star; and sets on the 1st at 9h. 0m. P.M.; on the 15th, 9h. 37m. P.M.; and on the last day, at 10h. 8m. P.M.; at the W. on the 4th, and at the W. by N. on the 18th. She is moving eastward among the stars during the month; is near Uranus on the 23rd; and the Moon on the 26th.

**MARS** is in the constellation Sagittarius till the 24th, and in Capricornus from the 25th.

He is a morning star; and rises on the 1st at 6h. 4m. A.M., at 4½ S. of S.E. by E.; and on the last day, at 5h. 28m. A.M., at the S.E. by E. points of the horizon. His times of southing are given below; and he sets between 1h. and 2h. P.M. He is moving eastward among the stars, and is near the Moon on the 19th.

**JUPITER** is in the constellation Leo, and is visible throughout the night. He rises on the 1st at 5h. 10m. P.M., at 3½ N. of E.N.E.; and on the 28th, at 3h. 0m. P.M., at 4½ N. of E.N.E.; souths at an altitude of 54½° on the 1st, and of 56° nearly on the last day; and sets between 6h. A.M. and 8h. A.M. He is moving slowly westward among the stars, and is near the Moon on the 7th. On the 6th he is in opposition to the Sun.

**JUPITER'S SATELLITES.**—The Immersions are visible till the 7th, and take place very near to the body of Jupiter, on the left hand as seen through a telescope that does not invert, and on the right hand of an inverting telescope. After the 7th the Emerisions will become visible, and they will take place very near to the body of the planet, on the left hand as seen through a non-inverting telescope, and on the right hand as seen through an inverting telescope.

**SATURN** is in the constellation Pisces throughout the month. He is an evening star; and sets at 8h. 28m. P.M., on the 1st day, at 3½ N. of W. by S.; and on the last day at 7h. 1m. P.M., at 5½ N. of W. by S. He moves eastward among the stars, and is near the Moon on the 24th.

**URANUS** sets near the W. by N. on the 1st, at 1h. 3m. P.M.; and on the last day at 9h. 21m. P.M. He souths on the 15th, at 3h. 30m. P.M., at an altitude of 45°. He moves eastward among the stars; is near Venus on the 23rd, and the Moon on the 26th.

## ON THE SATELLITES OF JUPITER, AND THEIR ECLIPSES.

In the annexed diagram, S represents the Sun; and E, E 1, E 2, E 3, show the Earth in different parts of its orbit; J, Jupiter, in his orbit (A B), surrounded by his four satellites, the orbits of which are marked 1, 2, 3, 4. At a, the second satellite enters the shadow of the planet, and disappears; it emerges at b, but Jupiter conceals it at this time, as will be seen by drawing a line from E to b. The satellite

then passes to its greatest eastern elongation (at c), and from thence, before he planci, to its greatest western elongation (at d). The same remarks apply to the other satellites. As the shadow of Jupiter is always directed from the Sun, it will be evident that the immersions only will be visible to a spectator on the Earth when the Earth is passing from E to E 2; and the emersions only will be visible whilst the Earth is passing from E 2 towards E, or when Jupiter is advancing from opposition to conjunction. The 3rd and 4th satellites, as has been remarked, in consequence of their greater distances from the planet, sometimes disappear, and re-appear on the same side of the disk.

DIAGRAM ILLUSTRATIVE OF THE ECLIPSES OF JUPITER'S SATELLITES.



Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					JUPITER'S SATELLITES.				OCCULTATIONS OF STARS BY THE MOON.			
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.	Eclipses of				Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
	Afternoon.	Afternoon.	Morning.	Morning.	Afternoon.	1st Sat.	2nd Sat.	3rd Sat.	4th Sat.				
1	H. M.	H. M.	H. M.	H. M.	H. M.	Immersion. I.	Emersion. E.			95 Virginis	6	D. H. M.	
6	1 18	3 3	9 56	0 40	2 50	D. H. M.	D. H. M.					Star below horizon.	
11	1 23	3 3	9 53	0 17	2 32	1 1 8 A.M. I.	2 8 41 P.M. I.					12 11 18 P.M.	Dark
16	1 19	3 3	9 49	Aftern.	2 14	2 7 36 P.M. I.	10 2 11 A.M. E.			A star in Ophiuchus	5	16 4 29 A.M.	Bright
21	1 0	3 3	9 46	11 23	1 57	8 5 17 A.M. E.	17 4 48 A.M. E.					16 5 49 A.M.	Dark
26	0 28	3 3	9 42	11 6	1 39	9 11 45 P.M. E.	27 8 44 P.M. E.			A star in Arietis	6	27 6 51 P.M.	Dark
28	Morning	3 2	9 39	10 44	1 22	11 6 14 P.M. E.						27 7 39 P.M.	Bright
	11 34	3 1	9 37	10 36	1 15	17 1 39 A.M. E.							
						18 8 8 P.M. E.	1 4 8 A.M. I.						
						25 10 2 P.M. E.	22 7 36 P.M. E.						

Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
FULL MOON	22h. 4m.	12° 45'	23h. 49m.	1° 28'	18h. 43m.	23° 43'	9h. 24m.	16° 20'	23h. 37m.	4° 49'	1h. 11m.	6° 51'
LAST QUARTER.	6 22 29	9 14	0 9	North.	18 59	23 27	9 21	16 33	23 38	4 36	1 11	6 55
NEW MOON	11 22 45	6 18	0 29	3 43	19 15	23 5	9 19	16 45	23 40	4 22	1 12	6 59
PERIGEE	16 22 46	4 47	0 49	6 16	19 31	22 36	9 16	16 58	23 43	4 8	1 13	7 4
APOGEE	21 22 33	5 12	1 8	8 44	19 47	22 2	9 14	17 9	23 45	3 54	1 13	7 9
	26 22 14	7 7	1 27	11 8	20 3	21 22	9 11	17 20	23 47	3 40	1 14	7 14





'Twas on the morn of Valentine, when birds begin to prate,  
 Dame Durdon's servant-maids and men, did each betake a mate.  
 There was Moll and Bet, and Doll and Tot, and Dorothy draggle tail,  
 And Kate who was a charming girl to carry the milking-pail.

*Old Song, entitled " Dame Durdon.*

FEBRUARY brings with it Valentine Day. It is the month of hilling and cooing when youthful lovers have a most mysterious affection for hearts and darts, wing-and rings, Cupids and altars, and no end of nameless emblems surrounded with lace-edged paper, and borders of flowers in all kinds of unnatural colours, which hang temptingly in the windows, and greatly bewilder the senses of both youth and maiden, while they gaze. What a fluttering there is amongst young hearts, what a trembling bashfulness do the fairer purchasers display if the vendor of these cherished love-tokens chances to be a handsome young shopman, assuring him, should he request permission to write the address, that they have only purchased it to please a young friend, and that on no account should they themselves think of sending such nonsensical trifles. "Oh, dear, no! on no account." But St. Valentine's is a day of little harmless deceits; it seems to have been dedicated to disguised handwritings and false signatures; when letters that are only sent to the next door are posted a mile or two away, yet, strange ending of all, each fond lover hopes to be detected through this thia disguise. What a knowing and important look does the postman assume on the morning of Valentine Day, especially in the country, where almost every rustic maiden is known

to him personally, and where he is as confident as if he had opened and read the missive, that it is not the only messenger of love that has been sent, but he can give a shrewd guess as to whence and from whom the little packet has been despatched. The country barmaid seems rather more demure on such a morning; and even hard-handed and red-armed Betty looks brighter about the eyes than the tin and copper utensils which she daily scours—coming to the door ever and anon—peeping down the road, and wondering whatever it is that makes John, the postman, so late. Then the ostler has a struggle with Betty in the kitchen, endeavouring to get a peep at her Valentine; while the postboy looks with eyes askance upon Jane, the barmaid, on whom he is, as they say in the country, "rather sweet." He finds more to do than usual in the stable amongst his horses, whistles a great deal to himself, and when asked by the pretty flirt what is the matter, answers "Oh, nothing at all!" wondering all the while to himself who can have had the impudence to write to Jane, and only wishing that he knew. She, perhaps, to make him a little jealous, has bought and posted the Valentine, and addressed it to herself, for such manoeuvres are occasionally practised by the maidens when they wish to bring a distant lover to the point at



issue. Another picture which we have seen of Valentine Day would have looked well in the minute painting of a Wilkie. The fond old mother, with her spectacles on, reading the Valentine to her husband, who smiled as he listened attentively to every line, which said

The rose is red, the violet's blue,  
Carnation's sweet, and so is you.  
The ring is round and has no end,  
So is my love to Mary, my friend.  
First we cast lots, and then we drew,  
Kind fortune said it must be you.

While the pretty daughter to whom these old-fashioned lines were directed sat with her hands clasped together on her knees, looking thoughtfully in the air and wondering to herself whether or not William really meant what he had written, and if he loved her truly, as much as he pretended to do. Then when she had retired to rest, the old people would sit down and think over what they could spare Mary towards housekeeping, when she married, and they would enumerate nearly everything they possessed, and deprive themselves of many little necessary articles, to add to the comforts of Mary, for ten to one they knew William's mind much better than she did: as the lover and the intended father-in-law, had often met on a Saturday evening at the Plough, where, over a pint and a pipe, they had discussed the whole affair even down to what they should provide for dinner on the wedding-day.

Many antiquarians have endeavoured in vain to unravel the origin and mystery of Valentine Day, but their labours have hitherto been in vain; if discovered, it would likely enough be as unmeaning as the source from whence so many of our old customs have sprung, and not worth the labour wasted. Our ancestors were pretty close observers of nature, and there is but little doubt that, as they noticed the birds, which first begin to build and pair at this period, when the weather is favourable, so natural an occurrence might lead to youths and maidens imitating the custom by selecting lovers, glad of any amusement after the dark mid-winter had passed, and that Valentine Day had no other origin. As far back as we have been enabled to trace this love-making day, we find it linked with the mating of birds, which seems inseparable from St. Valentine; and we are at a loss to imagine how the worthy bishop, whose name is associated with it, first fell into such company.

The earliest Valentines were nothing more than slips of paper, on which the names of both sexes were written: they were placed apart, the men drawing from the pile on which the women's names were endorsed, and they again taking the first they touched from the opposite heap. These names were worn for a number of days—sometimes inside the coat, waistcoat, or bodice—sometimes only on the sleeve, just as the feigned or real lover intended to express his passion; and there is no doubt but that such a game, begun in jest, ended at times in earnest, and that by this means many of our forefathers won their fair brides.

Even in our own day (and in the country the harmless superstition still exists), the first maiden we met on this auspicious morning was considered our Valentine, and as such was hailed; and no little trouble do the rustic lovers put themselves to occasionally, to meet the one on whom their choice has before been fixed. We can remember ourselves in the hey-day of youth being foolish enough to walk two miles in the snow and darkness, and waiting until the cottage door opened, to claim a cherry-cheeked farmer's daughter for our Valentine. Too poor, perhaps, to purchase the printed epistle, with Cupid's altar, hearts, and doves, we presented the original, and thereby saved both paper and postage. Gay, in his "Shepherd's Week," thus describes this old superstition:—

Last Valentine, the day when birds of kind  
Their paramours with mutual chirpings find,  
I early rose, just at the break of day,  
Before the sun had chased the stars away.  
A-field I went, amid the morning dew,  
To milk my kine (for so should housewives do)  
The first I spied: and the first swain we see,  
In spite of fortune, shall our true-love be.

We have in our possession, framed and glazed, a Valentine, which was sent to a dear old lady we well know, more than half a century ago. It must have taken many hours to have cut out the hearts and diamonds in scissors-work, and printed the border which surrounds the unsavoury-looking gentleman, who is standing under a tree, and pointing to his ship. Both Chaucer and Lydgate make mention of Valentine Day, for the "Morning Star of Poetry" says—

Blessed be Saint Valentine,  
For on his day I chose you to be mine—  
Without repenting, my heart sweet.

—proof that five hundred years ago it was celebrated in England.

Towards the close of the month, if the weather is fine, the gardeners begin to bestir themselves. You see the little children out beside the cottages, with their tiny spades, assisting to clear away the withered boughs, and delighted at the fire that is kindled to burn up the rubbish, into which they thrust almost everything they can lay hold of that will burn. Days are longer, and they remain out to the very last minute, it is light, to play in the village street. Such a picture have we now before us. The scene is a rough-hewn wall dividing a church-yard from the high-road: on the opposite ascent stand a row of little cottages, which overlook the low stony barrier, and command a view of the resting-places of the dead. A plot of grass, that already wears a green spring look, slopes down to the edge of the high-road; beside which a clear water-course goes tinkling into the distant valley, then empties itself into a deep sluice, which goes murmuring along through the dark flood-gates that open into a neighbouring river. The stream is crossed by a strong plank, which leads to the cottages. Some of the children are throwing stones and bits of sticks into the stream; others are watching them float away, and anxious that this boat, as they call it, should beat the oar. Cold as it still is, a little boy and girl are sitting on the sloping greensward: their mother, who stands sewing at the cottage-door, has twice warned them that they will take cold unless they get up; but they pay no regard to her. Two others are sitting astride the low church-wall; a third is jerking stones into the brook. Lower down another group are running after each other. Beyond these you see the light from the blacksmith's shop falling faintly across the road. Most of the cottage doors are open, for, although only as yet February, the air is as mild as if it were April. An artist might sketch such a scene for a summer evening, were it not that the trees are still leafless; for the little green on the elders beside the brook, and the tiny buds on the gooseberry-bushes, are as yet the only heralds that proclaim the coming of Spring.

The cloudy brow  
Of winter smooth'd, up from her orient couch  
She springs, and like a maid betroth'd, puts on  
Her bridal suit, and with an ardent smile  
Comes forth to greet her lover. Graceful 'tis,  
Ay, passing sweet, to mark the cautious pace  
Of slow-returning spring, e'en from the time

When first the matted apricot unfolds  
Its tender bloom, till the full orchard glows.—BURDIS.

In our description of February last year we only made slight mention of the rooks. We will now endeavour to do more justice to the habits of these dusky gentlemen, who go marching over field and furrow as if they were alone the sole proprietors of the land. Like many other social communities, they are made up of good and bad, and, in spite of a tolerably vigilant police, are not free from the depredations of their own light-fingered gentry, who do not hesitate to carry away the whole of a neighbour's house when his back is turned; or sometimes instead of removing it, they take possession, and although generally turned out in the end, they have been seen to maintain their ground with a spirit worthy of a better cause. Sometimes a young married couple having laid a good solid foundation for their future home, return with a couple of rafters in their beaks, which, after a careful survey, they have borne over hill and valley, with weary wings, an immense distance; when, lo! instead of finding the half-finished house as they left it, the very foundation is gone, and nothing but the naked fork of the branch on which it was laid remains. Well may they hob their heads and caw to one another, and wonder what impudent thieves have been so hasty during their absence. They set out on the search, and find on the next tree every stick and stake twisted into another nest, on which one of the plunderers is resting, while the other robber, a down-looking dark-faced rascal, is perched on the branch beside his companion. After exchanging a word or two of a sort on each side, the battle commences: the whole neighbourhood is alarmed; the police interfere; and being beaten the culprits are driven out—transported to some solitary tree—and not allowed during that season to return to the rookery.

Your rooks are not a proud people, who refuse to mingle with strangers, for they will frequently allow the noisy Jackdaws to build beside them, and are not above dining with the starlings in winter, so long as they conduct themselves respectfully. Every one who has rambled out in spring or summer must have noticed the hundreds of small caterpillars which are often seen suspended by their own threads from the trees, especially the oak, the beautiful foliage of which they soon destroy. Here the rooks find a rich repast; and instead of waiting until the insects have spun their way to the ground, these birds alight upon the trees, and, fluttering their great black wings, send down the caterpillars in thousands, and having strewn the greensward with a plentiful banquet, the rooks then descend and eat their fill.

Although the hooded crows do not live and build together in common like the rooks, but in pairs, and generally at some distance, yet they hold what naturalists have called a Crow-Court. For two or three days may they be seen assembling together on some particular hill or field; and Dr. Edmonson, in his work on the "Shetland Islands," describes them as delaying the trial for a day or two, until sufficient numbers have arrived to form the court. Whether the prisoners are driven thither by force, or come to defend themselves, are found guilty by witnesses, or what, cannot be known, though it is an undisputed fact, that the whole assembly are heard to croak as if in argument; that this lasts for some time—when the court rises like one crow, and begins to peck and beat the prisoners to death. Sometimes three or four of these victims are left dead on the floor of the court; and when the execution is over, the whole tribe disperse, betaking themselves in couples to their solitary trees, nor ever assembling together again in numbers until the next great crow-court is summoned.

The swallow and the martin, if the weather is very favourable, often arrive by the end of this month, and we hear the old familiar twittering under the eaves in the early morning.

"The nest of a bird," says Mr. Crouch, "is so interesting an object, so curiously and admirably contrived for an evident purpose, of materials apparently so little calculated for the formation of such a structure, and its form and position are so varied according to the aptitude for comfort of its inhabitants, combined with security from discovery and danger, that it has ever been contemplated as a surprising manifestation of skill and intelligence in the little beings engaged in its fabrication."

Some to the holly hedge  
Nestling repair, and to the thicket some;  
Some to the rude protection of the thorn  
Commit their feeble offspring.—THOMSON.







		SUN.					MOON.					DURATION OF MOONLIGHT.				HIGH WATER		Day of the Year.	
M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SOUTHS.					SOUTHS.					Before Sunrise.		After Sunset.		At London Bridge.		
			Rises.	After 12 o'clock.		Height above horizon.	Sets.	Rises. Morning.	After- noon.	Height above horizon.	Sets. Morning.	O'Clock. 2h. 4h 5h.	Moon's Age	O'Clock. 7h. 8h. 10h.	Morning.	Afternoon			
				h. m.	m. s.												Deg.		n. n.
1	Th	Ember Week	6 48	12 35	31	5 38	10 12	5 49	54	1 4	0 24					h. m.	h. m.	60	
2	F	St. Chad	6 46	12 23	31	5 39	10 57	6 46	56	1 34					7 2	7 30	61		
3	S	Capella souths 6h. 19m. P.M.	6 44	12 10	31	5 41	11 49	7 44	56	1 4	2 39				8 4	8 40	62		
4	S	2ND S. in LENT	6 42	11 56	32	5 43	Afternoon	8 41	55	1 38	3 38				9 25	10 10	63		
5	M	Sirius souths 7h. 45m. P.M.	6 40	11 43	32	5 44	1 55	9 37	53	1 4	4 28				10 53	11 40	64		
6	Tu	Castor souths 8h. 23m. P.M.	6 38	11 29	33	5 46	3 5	10 30	50	1 2	5 10				No Tide	0 15	65		
7	W	Perpetua	6 36	11 14	33	5 48	4 16	11 21	47	5 44					0 44	1 10	66		
8	Th	Eclipse of Moon	6 33	10 59	33	5 50	5 28	Morning	43	6 14					1 37	2 0	67		
9	F	Procyon souths 8h. 22m. P.M.	6 31	10 44	34	5 51	6 36	0 10	38	6 41					2 20	2 40	68		
10	S	Pollux souths 8h. 23m. P.M.	6 28	10 28	34	5 53	7 45	0 57	34	7 16					3 0	3 20	69		
11	S	3RD S. in LENT	6 26	10 12	35	5 55	8 52	1 43	30	7 32					3 35	3 53	70		
12	M	St. Gregory	6 24	9 55	35	5 57	9 56	2 28	27	7 58					4 10	4 25	71		
13	Tu	Regulus souths 10h. 34m. P.M.	6 21	9 39	35	5 59	10 59	3 13	24	8 22					4 45	5 0	72		
14	W	Adm. Byng shot, [1757]	6 18	9 22	36	6 0	At Midnight	3 58	21	8 51					5 15	5 35	73		
15	Th	Castor souths 7h. 52m. P.M.	6 16	9 5	36	6 2	Morning.	4 44	19	9 23					5 50	6 7	74		
16	F	Procyon souths 7h. 54m. P.M.	6 13	8 47	36	6 4	0 56	5 30	19	10 1					6 25	6 45	75		
17	S	St. Patrick	6 11	8 30	37	6 6	1 50	6 18	19	10 45					7 5	7 30	76		
18	S	4TH S. in LENT	6 9	8 12	37	6 8	2 39	7 6	20	11 34					8 0	8 45	77		
19	M	[Edward King of West Sax.	6 7	7 54	38	6 9	3 23	7 55	22	Afternoon					9 24	10 5	78		
20	Tu	Spring Qr. begins	6 5	7 36	38	6 11	4 2	8 44	24	1 31					10 45	11 25	79		
21	W	Benedict	6 3	7 18	38	6 12	4 37	9 34	28	1 38					No Tide.	At Noon.	80		
22	Th	Follux souths 7h. 37m. P.M.	6 1	7 0	39	6 14	5 8	10 24	32	1 49					0 30	0 55	81		
23	F	Weber died, 1829	5 59	6 42	39	6 15	5 37	11 14	—	5 3					1 15	1 35	82		
24	S	[Ann. Lady Day	5 57	6 23	40	6 17	6 5	Afternoon	37	6 18					1 55	2 15	83		
25	S	5TH S. in LENT,	5 54	6 5	40	6 18	6 33	0 58	41	7 36					2 33	2 50	84		
26	M	Pr. Geo. Wm. brn.	5 52	5 47	40	6 20	7 2	1 51	46	8 54					3 10	3 30	85		
27	Tu	[1819	5 50	5 28	41	6 22	7 34	2 47	50	10 11					3 49	4 10	86		
28	W	Abercromby died,	5 47	5 10	41	6 24	8 11	3 43	53	11 25					4 30	4 50	87		
29	Th	[1801	5 45	4 51	42	6 26	8 54	4 41	55	1 2					5 13	5 35	88		
30	F	Camb. Term ends	5 43	4 33	42	6 28	9 45	5 39	56	0 34					5 57	6 20	89		
31	S	Ox. Term ends	5 41	4 14	42	6 30	10 43	6 37	56	1 34					6 50	7 20	90		



## MARCH.

THE SUN is in the sign Pisces till the 20th, on which day, at 5h. 13m. P.M., he enters the sign Aries (the Ram), and Spring commences. On the 1st day he is 94,195,000 miles from the Earth. He rises on the 1st at  $3^{\circ}$  S. of E. by S.; on the 20th, at the E.; and on the 31st, at  $6^{\circ}$  N. of E. He sets on the same days respectively, at  $3^{\circ}$  S. of W. by S., at the W., and at  $7^{\circ}$  N. of W. His time of southing, in common clock time, and his height in degrees at the same time, are shown every day on the opposite page.

THE MOON is in the constellation Taurus on the 1st and 2nd; on the 3rd, in Orion, and crossing the Milky Way; in Gemini on the 4th; in Cancer on the 5th and 6th; in Leo on the 7th and 8th; in Virgo from the 9th to the 12th; in Libra on the 13th and 14th; in Ophiuchus on the 15th and 16th; near Aquila and Sagittarius on the 17th and 18th; in Sagittarius on the 19th; in Capricornus on the 20th; in Aquarius on the 21st and 22nd; in Pisces on the 23rd; near both Pisces and Cetus on the 24th and 25th; in Cetus on the 26th; near Cetus and Aries on the 27th; in Taurus on the 28th, 29th, and 30th; and in Gemini on the 31st.

She rises before the Sun sets till the 8th, after sunset till the 23rd, and after sunrise from the 24th. She sets before sunrise till the 8th, during the day till the 24th, and after sunset from the 25th. For the actual times, see the opposite page.

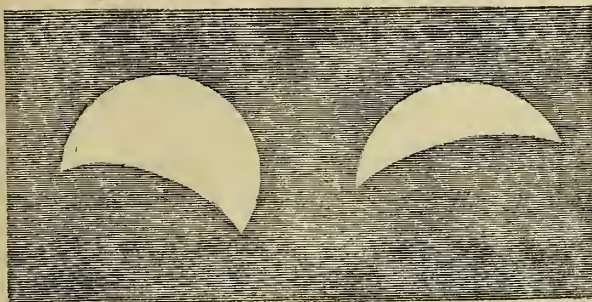
She is on the Equator on the 10th and on the 24th. Her time of southing, in common clock time, and her height in degrees at the same time, are given, for every day, on the opposite page.

She is near Jupiter on the 6th; Mars on the 21st; Mercury on the 22nd; Saturn on the 24th; Uranus on the 25th; and Venus on the 27th.

She is full on the 9th, and new on the 24th; and an Eclipse of the Moon takes place at the former time.

THE ECLIPSE OF THE MOON begins at London, on the 8th, at 11h. 25m. P.M.; and its successive appearances are shewn in the accompanying diagram.

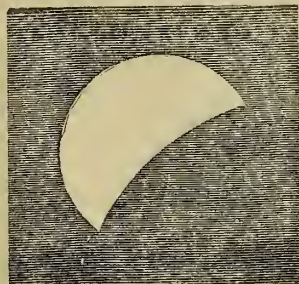
APPEARANCE OF THE MOON DURING HER ECLIPSE.



At 9d. 0h. 10m. A.M.

At 9d. 0h. 55m. A.M.

AFTER THE MIDDLE OF THE ECLIPSE.



9d. 1h. 40m. A.M.

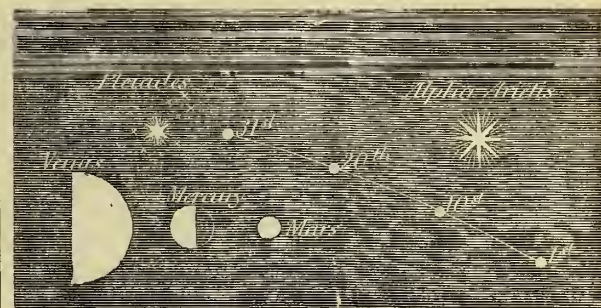
The middle of the Eclipse occurs on the 9th, at 0h. 55m. A.M.; and the annexed diagram shows the appearance of the Moon after this time, which ends at 2h. 25m. A.M. This is the only visible Eclipse during the year.

MERCURY is in the constellation Aquarius till the 30th; and on the 31st he passes into that of Pisces.

He is a morning star; and rises, on the 1st, at 41m.; on the 7th, 8th, and 9th, at 50m.; on the 10th, at 49m.; and on the last day, at 32m., before the Sun. He is not very favourably situated for observation. He sets before the Sun throughout the month. He rises, on the 1st, at  $2^{\circ}$  E. by S.; on the 15th, at  $8^{\circ}$  S. of E. by S.; and on the 31st, at  $2^{\circ}$  S. of E. by S. He is moving westward among the stars from the 1st to the 7th; is stationary on the 8th; and is moving

eastward from the 9th to the 31st. He is near the Moon on the 22nd, and at his greatest west elongation on the same day. His telescopic appearance at this time is shewn in the annexed diagram.

APPEARANCE OF VENUS ON THE 1ST; OF MERCURY ON THE 22ND; AND OF MARS ON EVERY DAY; AND THE PATH OF VENUS IN THE HEAVENS DURING THE MONTH.



The planets are drawn on a scale of 40 seconds of arc to one inch; and the path of Venus with respect to the fixed stars is on a scale of 15 degrees to one inch.

VENUS is in the constellation of Aries till the 30th; and in that of Taurus on the 31st.

She is an evening star; and sets, on the 1st, at 10h. 10m. P.M.; on the 6th, at 10h. 21m.; on the 12th, at 10h. 33m.; on the 18th, at 10h. 44m.; on the 24th, at 10h. 51m. P.M.; and on the 31st, at 10h. 56m. P.M.; at  $8^{\circ}$  N. of W. by N. on the 1st; at W.N.W. on the 4th; and at N.W. by N. on the 23rd. She is moving eastward among the stars during the month; is at her greatest east elongation on the 1st; is in perihelion on the 10th; and near the Moon on the 27th. Her appearance on the 1st, and her path in the heavens, are shewn in the annexed diagram.

MARS is in the constellation Capricornus throughout the month.

He is a morning star; and rises, on the 1st, at 5h. 27m. A.M., at the S.E. by E.; and on the last day, at 4h. 25m. A.M., at  $1^{\circ}$  S. of the E.S.E. point of the horizon. His times of southing are given below; and he sets between 1h. and 2h. P.M. He is moving eastward among the stars, and is near the Moon on the 21st.

JUPITER is in the constellation Cancer throughout the month.

He is visible throughout the night. He rises, on the 1st, at 2h. 55m. P.M.; and on the last day, at 0h. 45m. P.M.; souths at an altitude of  $56^{\circ}$  nearly on the 1st, and of  $56^{\circ}$  at the end of the month, this altitude being the greatest he attains during the year. He sets between 4h. and 6h. A.M. He is moving slowly westward among the stars till the 27th, after which time he is nearly stationary among them, and is near the Moon on the 6th.

JUPITER'S SATELLITES.—The Emersions of the 1st, 2nd, and 3rd are visible; those of the 1st re-appear at less than one-half; those of the 2nd, at greater than one-half; and those of the 3rd, at one diameter of the Planet nearly. On the 5th, both an Immersion and an Emersion of the 4th are visible; it immerses at the distance of one diameter, and emerges at the distance of two diameters. All these phenomena take place to the left as seen through a non-inverting telescope, and to the right of the Planet as seen through an inverting telescope.

SATURN is in the constellation Pisces till the 9th; and in that of Cetus from the 10th till the end of the year.

He is an evening star at the beginning of the month; and sets, on the 1st day, at 6h. 57m. P.M. Towards the end of the month, he rises, souths, and sets at the same times as the Sun; and is not favourably situated for observation. He moves eastward among the stars, is in conjunction with the Sun on the 18th, and is near the Moon on the 24th.

URANUS sets near the W. by N., on the 1st, at 9h. 18m. P.M.; and on the last day, at 7h. 30m. P.M. He souths before the Sun sets; and is, therefore, not visible at these times. He moves slowly eastward among the stars, and is near the Moon on the 25th.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.				
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.
	Morning.	Afternoon.	Morning.	Afternoon.	Afternoon.
1	H. M.	H. M.	H. M.	H. M.	H. M.
6	11 27	3 1	9 35	10 31	1 11
11	10 58	3 0	9 32	10 10	0 54
16	10 40	2 58	9 28	9 48	0 37
21	10 30	2 55	9 24	9 27	0 19
26	10 26	2 51	9 20	9 6	At noon.
31	10 27	2 47	9 15	8 45	Morn.
	10 31	2 41	9 11	8 25	11 27

JUPITER'S SATELLITES.			
Eclipses of			
1st Sat.		2nd Sat.	
Emersion.		Emersion.	
D. H. M.	D. H. M.	D. H. M.	D. H. M.
4 11 56 P.M.	6 11 21 P.M.	14 1 58 A.M.	31 8 29 P.M.
12 1 51 A.M.	13 8 19 A.M.	19 3 45 A.M.	20 10 14 P.M.
28 0 9 A.M.			
3rd Sat.			
1 11 35 P.M.	9 3 34 A.M.		

OCCULTATIONS OF STARS BY THE MOON.				
Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.	
26 Geminorum	5½	D. H. M. 3 9 16 P.M. 3 10 22 P.M.	Dark	Bright
13 Virginis	6	10 2 37 A.M. 10 3 45 A.M.	Bright	Dark
4 Virginis	6	10 9 29 P.M. 10 10 11 P.M.	Dark	Bright
111 Tauri	6	29 7 30 P.M. 29 8 35 P.M.	Dark	Bright
117 Tauri	6	29 9 23 P.M. 29 10 3 P.M.	Bright	Dark

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	1st Quarter.	2d. Quarter.	3d. Quarter.	Full Moon.
1	22h. 4m.	8° 31'	1h. 38m.	12° 32'
6	21 54	10 30	1 56	14 44
11	21 55	11 39	2 14	16 49
16	22 5	11 54	2 31	18 44
21	22 22	11 21	2 47	20 28
26	22 42	10 5	3 2	22 0

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
1	22h. 4m.	8° 31'	1h. 38m.	12° 32'	20h. 13m.	20° 55'	9h. 10m.	17° 25'	23h. 48m.	3° 31'	1h. 15m.
6	21 54	10 30	1 56	14 44	20 29	20 6	9 8	17 34	23 50	3 16	1 16
11	21 55	11 39	2 14	16 49	20 44	19 12	9 6	17 42	23 53	3 2	1 17
16	22 5	11 54	2 31	18 44	21 0	18 13	9 4	17 49	23 55	2 47	1 18
21	22 22	11 21	2 47	20 28	21 15	17 9	9 3	17 54	23 57	2 32	1 19
26	22 42	10 5	3 2	22 0	21 30	16 1	9 2	17 58	0 0	2 17	1 20



# MARCH.—PRIMROSE AND PALM GATHERING.



O Spring! dear Spring! thou more dost bring  
Than birds, or bees, or flowers—  
The good old time, the holy prime  
Of Easter's solemn hours;  
Prayers offer'd up, and anthems sung,  
Beneath the grey church towers—*Fasts and Festivals.*

**PALM-SUNDAY**, was an old holiday which our ancestors kept with great reverence, in remembrance of Our Saviour's entrance into Jerusalem; and it is still a custom to ornament the houses in the country with the silvery buds of the willow (which are called palm) in the present day. These buds, which lie like great oval pearls upon the slender stems of the osiers, are the earliest heralds of spring, and often come out long before the hawthorn has put forth a single speck of green, and may frequently be seen in the cottage windows overtopping a border of sweet primroses, snowdrops, or violets, which have blown before the coming of Easter. Many a mild March day has seen us out with our youthful companions in the fields beside the river Trent, gathering the buds of the willow and the white blossoms of the blackthorn, which also hang upon the hedges, like a cloud of flowers, long before a green leaf, excepting that of the alder, has shot out of its wintry sheath. Although it was not the palm of Palestine we gathered, yet it was such as our forefathers had for centuries chosen as the emblem of those green branches which were scattered before Our Redeemer; and to us it brought back an old and holy

picture, carrying the imagination into that ancient city of the East, and bringing before the "mind's eye" one of those impressive scenes which are linked with the establishment of the Christian religion. It also calls up the figures of those pious pilgrims who wandered into the Holy Land and visited many a distant shrine, bearing the palm-branch in their hands—the acknowledged token of peace and prayer.

The abolition of these sacred emblems, which once adorned our churches, and were borne in our Easter processions, could be of no benefit to the progress of religion. They were the productions of Nature, not the work of man; they served to show that He who ruleth the seasons had again sent Spring with all her flowers; and with these were linked the memory of the Son of God, who rode not forth in regal purple, crowned with gold, but "meek, and sitting upon an ass." Such associations did the silver buds bring to the early Christians, and the custom of palm-gathering was kept up until the Reformation in England.

With what delight did we hail the first appearance of these pearl-like buds—



they told us that spring was near at hand; the sun also came to throw his light upon them two hours earlier than he did a few weeks ago, and in the huddling hedges we had already discovered the sky-stained eggs of the hedge-sparrow. Well can we remember the woods where we gathered the first primroses, and which were soon to be green with lilies of the valley. What a refreshing smell there was about the earth we dug up to get at the moss-covered roots of those early primroses, for they were the first treasures which we transplanted to our little gardens, where, day by day, they lost that beautiful bloom which they only bear in the solitude of the wildwood. The sounds of youthful voices seem in accordance with the opening of this happy season, as they fall at intervals upon the ear, filling up the pauses which occur between the singing of the blackbird or the thrush, and wafting pleasant memories to the wanderer, telling him that eager eyes are already watching the opening beauties of the flowers.

I love to see the little goldfinch pluck  
The groundsel's feather'd seed, and twitting, twit;  
And soon in bower of apple-blossoms perched,  
Trim his gay suit, and pay us with a song—MURRIS.

Above a thousand years ago, our Saxon forefathers had no other landmarks to distinguish the boundaries of their estates than the objects of Nature—a tree, a hush, or a water-course, served them instead of walls and hedges; and we can almost fancy that we are overlooking those old English landscapes while reading one of their ancient deeds of conveyance. One estate is mentioned in a deed, dated 886, as stretching along from Sheep-lea to the Broad Bramble, past the Old Gihet-place and the Old Ford, along the Deep-dell, to the Thorn on the Mere, thence to the Red-cross, by the stream of Alders, up the Milk-valley by the Foresters' Mark, and along the Hay-meadow. Another goes from the Bridge by the Eel-ditch, past the Bourn and the Great Willow, from the Hoary Thorn to the Oak-tree, by the Three Hills and the Thorn Maple to the Three Trees, the Deep Brook and the Clear Pool, by the Black Willow, the Nettle Island, the Sedge Moor, past the Burrows, the Hillock, the Ship Oak, the Great Aspen, by the Reedy Slough, and onward to the Hoary Apple Tree beyond the Wolf-pit.

What an assemblage of old poetical names have we here: we can see the half-drained and half-cultivated country; we can picture it in misty March with its reedy meres and impassable sloughs—the rude wooden bridge by which the ploughman crossed over the quaking bog to get at the rich land which lay beyond. Yet amid these wilds and old forest-fastnesses the violets and primroses glowed as they do now, and the Saxon serf was cheered by the skylark's song while he laboured in those old hedgeless wastes. The bleating of young lambs was then heard upon the wild—the ice-freud brooks rolled merrily along; and though he fared hard by day, and at night had a block of wood for his pillow, Nature was still his comforter, and he found solace in the sights and sounds, that greeted his eye and ear, when he wandered along over the opening daisies.

Although the trees are leafless, there is something about a mild sunny day at the close of March which tells us that all the out-of-door world is alive—that the very air which seemed so silent in winter now murmurs with life, while a thousands insects are dancing about overhead, as if rejoicing that the time of flowers is so near at hand. The winding roads have on such days a dry, warm, summer look, and you can scarcely peer under any hedge without discovering on the sun-lit bank the silent progress that spring is making; for here and there the stately celandine has thrown open its golden-rayed flower, and the furze hung out its burning blossoms, which shoot up like a thousand flames from a green chandelier. Now the first bee comes huddling abroad, and running his black head against everything, as if not yet thoroughly awake. You wonder where he has hidden himself all the long winter, for you see at a glance that he belongs to no hive, but has his home somewhere in the neighbouring wood. What a summer sound his humming gives to the air; depend upon it he knows where the broadest primroses and sweetest violets blow; but he has gone to snatch yonder furze-bush, and will soon be busy rifling the yellow blossoms;

While the ploughman, rear at hand,  
Whistles o'er the furrow'd land,

giving all the air a "countrified smell," as he turns up the sleeping furrows, and causing you to sigh as you think of hadly-drained streets and ill-ventilated houses, which you are doomed to breathe amongst in the City, places which rosy Health rarely plants her foot upon, for if she alights there the bloom upon her cheek at once begins to fade, and unless she hurries back to the breezy hills and greenwood sides, she will be compelled to how her head in wan consumption's sickly lap.

So conducive to health is the aroma arising from the newly-ploughed earth, that we have frequently seen an invalid seated in a chair, secured to a kind of truck which was attached to the horses, and dragged along behind the ploughman, whose labour was not at all impeded by his passenger, excepting that it required more care when turning round at each end of the field. What heavy masses of clay at times cling to the ploughman's hoots. You wonder how he manages to get along with such a clog to his heels; every stride he takes, the mass accumulates; and when, after many shakes, he gets rid of it, there lies a clod weighing pounds upon the furrow, the upper part hearing the impression of every nail in his hoot. His hands are hard as horn through holding the plough; and if he has followed the same labour for years, there is a peculiar roundness about the shoulders which tells that the continued grasping of those bright shafts is no easy work.

The roads have a different appearance now from what they had a few months ago; there are more moving figures in the landscape, especially when it is market-day—such a scene as we have attempted to describe in a little poem, where

Busy forms move o'er the landscape brown  
In twos and threes, for it is market-day.  
Beyond those hills stretches a little town,  
And thitherward the rustics bend their way,  
Crossing the scene in red, and blue, and grey,  
Now by the hedge-rows, now by oak-trees old,  
As they by stile or low-thatched cottage stray.  
Peep through the ruined band, then you'll behold  
Such scenes as Morland drew in frames of sunny gold

A laden ass, a maid with wicker maun,  
A shepherd's lad driving his lambs to sell;  
Gaily-dressed girls move in the sunny dawn.  
Women whose cloaks become the landscape well  
Farmers whose thoughts on crops and prices dwell.  
An old man with his cow and calf draws near.  
Anon you hear the villager's cart appear,  
Then doth his grey old fillet cart appear,  
Moving so slow, you think he never will get there.

But "slow and sure" has been for years his motto; and he will not only get there in time for the market, but stop and halt at a little road-side house, the swing sign of which you can just distinguish by the white post that supports it, on the left at the foot of the hill.

Now in the ponds and ditches may be seen hundreds of little frogs, and tadpoles with their round heads and long tails, hearing, at present, no more resemblance to a frog, than an egg does to a living bird. They are devoured in millions by the fishes. If they miss the jaws of the finny tribe, there are the newts ready to prey upon them: if they escape the newts, there are no end of water-fowl on the look-out: the snake feeds upon them as soon as they can leap: stoats and weasels dine off them, when nothing better can be had; and they can scarcely move anywhere without meeting with an enemy. On no account ought frogs to be driven out of gardens that are infested with slugs; for these are a favourite food; and wherever frogs are found, the slugs soon disappear. The way in which the frog seizes its prey is by throwing its tongue forward. The action is quick as thought—no sooner is the tongue out than the slug has vanished: it is almost impossible for the eye to detect the action, it is so momentary. In winter the frog buries itself in the mud, at the bottom of ponds and ditches, where it remains until spring, when it comes forth; and you may then see on the top of the water a number of black spots floating in a jelly-like substance. These are the spawn, or eggs, in which the tiny tadpoles are enclosed. They possess the power of breathing through the skin; and it is no easy task to either hang or drown them. It is now stale information to state that the toad is not venomous, but is as perfectly harmless as the frog, and equally useful in gardens. It is an unnecessary cruelty to destroy these inoffensive reptiles: they have sufficient enemies without man waging war against them; he, of all, ought to be their protector.

I have a great love for those little dirty and noisy vagrants, the sparrows; who hide, and huddle, and breed under the smoky eaves, and come out, sometimes, as black as soot. Whoever man rears his house, they follow. They are always ready with their "good morning" as soon as it is light. They take possession above, and the mice below; both are nappers that will have no "nay." If man can contrive to live, they are resolved to live with him. For ages they have been his constant companions. The sparrow hops down and breakfasts with the fowls, without needing an invitation. He takes possession of the corn-crick, and helps himself hungrily. In summer, he goes into the harvest field, if it is near at hand; nor is he very particular about waiting until the corn is ripe, before he commences his banquet. In vain does the farmer set a price upon his head; he contrives to live, and die, and leave a large family of sparrows behind him, who know how to pick up a living as well as he did. The sparrows, like the rooks, have their mode of punishment; and when any culprit has committed himself, they raise a clamour loud enough to alarm a whole neighbourhood. It begins in a moment—they all set to at once; and when they have had their say, they leave the offender to his own reflections. They are hasty, but it is soon over with them: nor do they ever put their victim to death; but having beaten him, and told him their minds, they treat him as kindly as before. In one instance, when the house sparrows had undergone a long persecution, they heat a retreat, and huilt their nests in some adjoining trees—a proof, that, when compelled by danger, they could change their habits; and, like other birds, huddled amongst the branches, instead of under the thatch or beneath the eaves.

One of the great pleasures which a lover of nature finds in a March ramble, is the arrival of the birds, which keep dropping in by twos and threes, we know not from whence. Nearly first comes the little wryneck, with its beautiful plumage, so richly marked, that it is almost impossible to describe its varied colours. You know it at a glance; for it is always twisting the dark-lined head and neck over the shoulders. Then we see the tiny willow-wren, whose chirp may be heard until September. It is also elegantly marked—yellow, brown, and white, and fond of frequenting the osier-beds. The timouise and yellow-hammer also begin to sing; and together with the skylark, blackbird, thrush, woodlark, wren, and several others, there is already such a spring concert opened, as makes a lover of nature leave his chimney corner, and go forth to listen to their "sweet piping."

Sweet were the sounds which through the green vale flow'd:  
The gentle lambs bleated all summer long;  
The spotted heifer from the upland low'd;  
The speckled thrush struck up its piping song;  
A mournful "coo" the blue wood-pigeon made,  
Now high, now low, now lost—just as the spring breeze played.







M	D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT.				HIGH WATER		Day of the Year
			Rises.	SCITIS.		Sets.	Rises.	SOUTHS.		Sets.	Before Sunrise.		Moon's Age.	After Sunset.		At LONDON BRIDGE.	
			h. m.	m. s.	Deg.	h. m.	h. m.	h. m.	Deg.	h. m.	O'Clock. 2h. 3h. 4h.		O'Clock. 5h. 6h. 10h.		Morning.	Afternoon	
1	S	PALM SUNDAY	5 38	3 56	43 1	6 31	11 42	7 32	54 1	2 26					7 50	8 30	91
2	M	2nd Day in Pas-	5 36	3 38	43 1	6 33	Afternoon	8 25	51 1	3 10					9 15	9 59	92
3	Tu	sion Week	5 34	3 20	44 1	6 35	2 4	9 16	48 1	3 45					10 40	11 25	93
4	W	St. Ambrose	5 31	3 2	44 1	6 37	3 15	10 54	43 1	4 17					At Noon.	No Tide.	94
5	Th	Maundy Thursd.	5 29	2 44	44 1	6 38	4 23	10 52	41 1	4 43					0 28	0 55	95
6	F	GOOD FRIDAY	5 27	2 26	45 1	6 40	5 31	11 37	36 1	5 10					1 20	1 40	96
7	S	Castor souths at 6h. 2m. P.M.	5 21	2 9	45 1	6 41	6 37	Morning.	32 1	5 32					2 0	2 15	97
8	S	EASTER SUNDAY	5 22	1 52	45 1	6 43	7 43	0 22	28 1	5 57					2 35	2 50	98
9	M	Easter Monday	5 20	1 35	46 1	6 44	8 47	1 7	25 1	6 23					3 10	3 25	99
10	Tu	Easter Tuesday	5 18	1 18	46 1	6 45	9 49	1 52	22 1	6 50					3 40	4 0	100
11	W	Procyon souths 6h. 12m. P.M.	5 15	1 2	47 1	6 47	10 48	2 38	20 1	7 21					4 15	4 30	101
12	Th	Pollux souths 6h. 13m. P.M.	5 13	0 46	47 1	6 48	11 42	3 24	19 1	7 56					4 45	5 0	102
13	F	Alpha Hydre souths 7h. 53m. P.M.	5 11	0 30	47 1	6 50	Morning.	4 11	18 1	8 38					5 20	5 35	103
14	S	[Easter T. begins	5 9	0 15	48 1	6 52	0 32	4 59	20 1	9 25					5 54	6 10	104
15	S	Low SUNDAY.	5 7	At Noon.	48 1	6 54	1 18	5 47	20 1	10 18					6 35	7 0	105
16	M	Passage of the Ky-	5 5	Before 12 o'clock.	48 1	6 55	1 59	6 35	23 1	11 16					7 25	8 0	106
17	Tu	ber Pass by G'n Pollock, 1812.	5 2	0 30	49 1	6 57	2 34	7 23	26 1	Afternoon					8 40	9 20	107
18	W	Oxford and Cam-	5 0	0 43	49 1	6 59	3 6	8 12	30 1	1 26					10 0	10 35	108
19	Th	bridge Term begins.	4 58	0 57	49 1	7 1	3 35	9 134	2 37	2 37					11 10	11 45	109
20	F	Regulus souths 8h. 5m. P.M.	4 56	1 10	50 1	7 2	4 2	9 52	39 1	3 48					No Tide.	0 13	110
21	S	Beta Leonis souths 9h. 42m. P.M.	4 55	1 23	50 1	7 4	4 30	10 43	44 1	5 8					0 38	1 0	111
22	S	2ND S. aft. EAST.	4 53	1 35	50 1	7 6	5 0	11 37	—	6 28					1 20	1 40	112
23	M	St. George	4 51	1 47	50 1	7 8	5 28	Afternoon	48 1	7 48					2 0	2 20	113
24	Tu	Spica Virginis souths 11h. 5m. P.M.	4 49	1 58	51 1	7 10	6 6	1 30	52 1	9 7					2 45	3 5	114
25	W	St. Mark Evan.	4 47	2 9	51 1	7 11	6 47	2 30	55 1	10 20					3 25	3 50	115
26	Th	Princess Alice, M. born, 1813.	4 45	2 19	52 1	7 13	7 37	3 31	56 1	11 26					4 10	4 35	116
27	F		4 43	2 29	52 1	7 14	8 34	4 30	56 1	Morning.					4 55	5 20	117
28	S	Eta Bootis souths 11h. 20m. P.M.	4 41	2 38	52 1	7 16	9 36	5 28	55 1	0 23					5 45	6 10	118
29	S	3RD S. aft. EAST.	4 39	2 47	53 1	7 17	10 44	6 22	52 1	1 11					6 40	7 10	119
30	M	Arcturus souths 11h. 33m. P.M.	4 37	2 56	53 1	7 19	11 55	7 14	49 1	1 49					7 44	8 20	120



# THE ILLUSTRATED LONDON ALMANACK FOR 1849.

## APRIL.

THE SUN is in the sign Aries till the 20th; on which day, at 5h. 34m. A.M., he enters the sign Taurus (the Bull.)

On the 1st he is 95,010,000 miles from the earth. He rises, on the 1st, at 7<sup>h</sup> 2<sup>m</sup> N. of E.; on the 7th, at 1<sup>h</sup> S. of E. by N.; and on the 28th, at E.N.E.; he sets on the same days at 7<sup>h</sup> 2<sup>m</sup> N. of W.; at W. by N., and at 1<sup>h</sup> N. of W.N.W. respectively. His times of southing, in common clock time, and his height in degrees at the same time, are given for every day on the opposite page.

The MOON is in Taurus on the 1st; Cancer on the 2nd; Leo on the 3d, 4th, and 5th; in Virgo from the 6th to the 10th; in Ophiuchus on the 11th, 12th, and 13th; near both Aquila and Sagittarius on the 14th and 15th; in Capricornus on the 16th; in Aquarius on the 17th, 18th, and 19th; in Pisces on the 20th; in Cetus on the 21st; in Pisces on the 22nd; in Cetus again on the 23rd; in Taurus on the 24th, 25th, and 26th; in Taurus on the 27th and 28th; in Cancer on the 29th; and in Leo on the 30th.

She rises before the Sun sets, till the 5th; during the night, till the 21st; and after sunrise, from the 22nd. She sets before sunrise, till the 6th; during the day till the 22nd; and after sunset, from the 23rd. For the actual times, see the opposite page.

She is on the Equator on the 6th and on the 21st. Her time of southing, in common clock time, and her height in degrees at the same time, are given for every day on the opposite page.

She is near Jupiter on the 2nd; Mars on the 19th; Saturn on the 20th; Mercury and Uranus on the 22nd; Venus on the 24th; and Jupiter again on the 29th.

She is full on the 7th, and new on the 22nd, but without an Eclipse at both times.

MERCURY is in the constellation Pisces till the 11th; in that of Cetus from the 12th to the 19th; in Pisces from the 20th to the 25th; in Cetus on the 26th and 27th; and in Aries from the 28th.

He is a morning star; and rises on the 1st at 30m.; on the 15th, at 19m.; and on the last day, at 5m. before the Sun. He is not well situated for observation. He sets before the Sun throughout the month. He rises on the 3rd, at E. by S.; on the 14th, at the E.; on the 23rd, at E. by N.; and on the last day, at 1<sup>h</sup> 2<sup>m</sup> S. of E.N.E. He is moving eastward among the stars throughout the month; he is near Saturn on the 11th; the Moon on the 22nd; and Uranus on the 23rd; as is shown in the annexed diagram, exhibiting the paths of these Planets in the heavens during the month.

PATHS OF MERCURY, SATURN, AND URANUS, WITH RESPECT TO EACH OTHER AND TO THE FIXED STARS, DURING THE MONTH OF APRIL, 1849.



Scale, 12 degrees to one inch.

VENUS is in the constellation Taurus throughout the month.

She is an evening star, and sets at 10h. 56m. P.M., on the 1st; at 10h. 57m.

on the 6th; at 10h. 49m. on the 12th; at 10h. 31m. on the 18th; at 10h. 9m. on the 24th; and at 9h. 35m. on the 30th; at 4<sup>h</sup> N. of N.W. by N. on the 1st; and at 6<sup>h</sup> N. of N.W. by N. on the last day. She is moving eastward among the stars from the 1st to the 19th; is stationary among them on the 20th and 21st, and is moving slowly westward from the 22nd to the 30th. She is at her greatest brilliancy on the 7th, and is near the Moon on the 24th; she is near the Pleiades all the month, at first approaching, then receding, and then approaching them again, as is shown in the annexed cut. Her telescopic appearances during this month and that of May, is shown in the next month.

RELATIVE POSITIONS OF VENUS WITH RESPECT TO THE FIXED STARS, IN APRIL, 1849.



Scale, 3 degrees to one inch.

MARS is in the constellation of Aquarius till the 27th, on which day he passes into Pisces.

He is a morning star, and rises on the 1st at 4h. 23m. A.M., at 1<sup>h</sup> S. of E.S.E.; on the 3rd, at 4h. 18m. A.M. at the E.S.E.; on the 29th, at 3h. 13m. A.M., at the E. by S. point of the horizon (his times of southing are given below), and he sets at about 2h. P.M. He is moving eastward among the stars, and is near the Moon on the 19th.

JUPITER is in the constellation Cancer throughout the month.

He is an evening star, and rises between 10h. A.M. and noon; souths at an altitude of about 56°, and sets on the 1st at 4h. 1m. A.M. at 6<sup>h</sup> 2<sup>m</sup> N. of W.N.W., and on the last day at 2h. 9m. A.M., at 6<sup>h</sup> N. of W.N.W.

He is nearly stationary among the stars till the 21st; and after this time he moves slowly eastward. He is near the Moon on the 2d, and again on the 29th.

JUPITER'S SATELLITES.—The Emerisions of the 1st and 2nd are visible; those of the 1st appear at the distance of one half, and those of the second at the distance of one diameter nearly. On the 13th an Immersion and Emerision of the 3rd are visible; the former occurs at a distance somewhat greater than one diameter, and the latter at two diameters, to the left of the Planet as seen through a non-inverting telescope, and to the right as seen through an inverting telescope.

SATURN is in the constellation Cetus throughout the month.

He is a morning star towards the end of the month, and rises, on the 15th, at 4h. 38m. A.M., and on the 30th, at 3h. 42m. A.M., a little S. of the E. point of the horizon. He moves eastward among the stars; is near Mercury on the 11th, and the Moon on the 20th.

URANUS sets near the W. by N. on the 1st at 7h. 41m. P.M. He moves slowly eastward among the stars; and is near the Moon on the 22nd, and Mercury on the 23rd.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					JUPITER'S SATELLITES.					OCCULTATIONS OF STARS BY THE MOON.					
	Mercury.		Venus.		Mars.		Jupiter.		Saturn.		Eclipses of		Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	1st Sat.	2nd Sat.				
											Emersou. E.		Immersion. I.			
	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.				
1	11 32	2 39	9 10	8 21	11 24	4 2 3 A.M. E.	7 11 6 P.M. E.	15 1 43 A.M. E.					Beta Virginis	3½	{ 5 6 45 P.M. 5 7 54 P.M.	Dark Bright
6	10 39	2 31	9 5	8 1	11 6	5 8 32 P.M. E.										
11	10 47	2 20	9 0	7 42	10 49	12 10 27 P.M. E.										
16	10 58	2 6	8 55	7 22	10 31	20 0 22 A.M. E.										
21	11 11	1 48	8 50	7 3	10 14	28 8 46 P.M. E.										
26	11 28	1 26	8 44	6 44	9 56		6 7 30 P.M. E.	13 7 56 P.M. I.								
30	11 43	1 6	8 40	6 30	9 42		13 11 30 P.M. E.	20 11 56 P.M. I.								

### TIMES OF CHANGES OF THE MOON.

And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Full Moon	7d. 3h. 50m. P.M.
Last Quarter	15 7 8 P.M.
New Moon	22 11 54 P.M.
First Quarter	29 2 17 P.M.
Apogee	12 10 A.M.
Perigee	24 10 A.M.

### RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination South.	Right Ascension.	Declination North.
1	23h. 11m.	7° 44'	3b. 18m.	23° 34'	21h. 48m.	14° 35'	9h. 1m.	18° 0'	0h. 2m.	2° 0'	1h. 21m.	7° 54'
6	23 37	5 10	3 30	24 36	22 3	13 19	9 1	18 1	0 5	1 46	1 22	8 1
11	0 6	2 6	3 33	25 22	22 18	12 0	9 1	18 1	0 7	1 32	1 23	8 7
16	0 36	North.	3 44	25 50	22 33	10 39	9 1	17 59	0 9	1 13	1 24	8 14
21	1 9	5 19	3 46	25 57	22 47	9 15	9 2	17 55	0 11	1 5	1 25	8 20
26	1 45	9 30	3 44	25 40	23 1	7 50	9 3	17 51	0 13	0 52	1 26	8 26





A fool! a coll!—I met a coll' the forest.  
A motley fool! a miserable world!  
As I do live by food, I met a fool.  
"Good morrow, fool," quoth I.—SHAKESPEARE.

WHAT merry "quirks and cranks" have we seen played on April-fool Day! What gushes of laughter have rung out, as one after another was beguiled by this harmless foolery! Who ever forgot the old shoemaker's shop by the roadside, where we sent some witting for a pennyworth of stirrup-oil, and who invariably got thrashed by the old cobbler's stirrup-leather? At any hour we can picture the sheepish look of the boy—see him holding out his saucer, while a twinkling of merriment gathered about the wrinkled corners of the old man's grey eyes, as he unloosed the strap from his foot and knee; and, although the hardest blow he struck would scarcely have killed a fly, yet what roars of hearty laughter we sent forth as we saw the little simpleton scamper off, and beheld the merry shoemaker shaking his strap as he stood at his shop-door, in the sunshine of an April morning. Then there was pigeon-milk to be sent for at the milk-bonse; and here, perhaps, the tables were turned upon us, for the youth we sent, although he pretended ignorance, took the mug and the penny, and going in at once, asked for a halfpennyworth of milk, put the other halfpenny in his pocket, then came out boldly, and said, "Here it is;" while we looked at each other, and confessed that he had made April fools of us. Then what shoes we said were untied—handkerchiefs dropped—hats crushed—black spots on the face,

which we sent them to the glass to look at—where they only got laughed at for their pains.

Wicked and not always harmless errands did we also send others upon. Mr. Somebody wanted to borrow the large brewing tub, and the lender went toiling with it in a barrow; the load was almost more than he could wheel; and when he arrived at his journey's end, the pretended borrower only called him an April fool. He had his joke, and we our laugh; but never again had he the loan of the brewing tub. We sent the doctor post-haste to some one who was hearty and well, and probably busied in his garden. We had the fire-engine brought a mile or two; then laughed at the old man as we pointed out the leaden pump for him to play upon. Pigs had fallen into imaginary wells; horses and donkeys we pounded, then laughed at the owners, who never for a moment thought of looking into their own fields or stables until they returned. Yet very rarely did these tricks provoke any anger; all was considered fair on April-fool Day, for every one was disposed to be merry; and very often the laugh was as loud on the part of the deceived as the deceivers, and small sympathy did he obtain who lost his temper on the first of April.

Even grave sober matrons unbent their staid brows at our jokes; they recalled



the days when they also were young, and had their jokes—when they got their lovers to hunt for a needle they had never dropped, or to stoop for a cotton-ball which was safely deposited in their laps. Such tricks seem to sit lightly, even on the conscience of old age; they bring no regrets. Though we have known a swain sent ten miles to see his sweetheart, by an urgent letter, yet the laugh they enjoyed together seemed, somehow, to sweeten the long and unnecessary journey. April-fool Day was a merry time with our forefathers, who appear never to have lost a chance of making themselves happy whenever they could.

Spring-time stirred the blood of the great father of English poetry, Chaucer. He could not lie in bed when the daisies were opening. He tells us that he then found no delight in his books; that when he heard the birds sing, and saw the flowers beginning to blow, he bade farewell to his study; that he loved the daisies above all the flowers that grew; that scarcely a morning dawned in spring but what he rose early. As he himself says:—

—I am up and walking in the mead,  
To see this flower against the sun spread.  
When it upriseth, early on the morrow,  
That hisslit sight softenth all my sorrow.  
So glad am I, when that I have presence  
Of it, to do it all reverence,  
As he that is of all flowers the flower,  
Fulfilled of all virtue and honour,  
And ever alike fair, and fresh of hue.

And ever I love it, and ever alike new,  
And ever I shall, till that mine heart die.  
There loveth no one hotter in his life,  
And when that it is eve I run blithe,  
As soon as ever the sun sinketh west,  
To see this flower how it will go to rest,  
For fear of night—so hateth she darkness.  
Her cheer is plainly spread in the brightness  
Of the sun—for there it will enclose.

There has been a great outcry of late amongst many good and well-meaning people against the capturing and rearing of young birds. They have pronounced it barbarous and cruel in the extreme, however kindly they may be reared. Now this is a strange contradiction. Kindness cannot be cruelty, even if misapplied. Youth of both sexes who rear up birds do their utmost generally to keep them alive; and we have no hesitation in asserting that an attendance upon the wants of these little chirrupers cultivates kind and affectionate feelings, softens the heart, and contributes towards the making of better men and women than they would otherwise have grown into, had it not been for these necessary attentions. A girl will weep, and a kind-hearted boy be sorry, for the death of a favourite bird. And while such things help to refine the feelings, and are unaccompanied by cruelty, it is surely better that a half-fledged nestling should perish, now and then, through excess of kindness, than such virtuous emotions be stifled. We dare not put the number of young birds that are carried off, and devoured by hawks, weasels, &c., against the few that die through over-nursing; although a good argument might be twisted out of such matter.

But, whatever may be said about birds, no such charge can be brought against flowers; and as the following passage, which we wrote some years ago in praise of these "bowing adorers of the gale," has appeared in several publications without the acknowledgment of our name, we think it but justice to claim our own:—

"Who would wish to live without flowers? Where would the poet find his images of beauty, if they were to perish? Are they not the emblems of loveliness and innocence, and the living types of all that is pleasing and graceful? We compare young lips to the rose, and the white brow to the radiant lily; the winning eye is blue as the violet, and the sweet voice like a breeze kissing its way through the flowers. We hang delicate blossoms on the silken ringlets of the young bride, and strew her path with fragrant flowers as she leaves the church. We place them around the marble face of the dead in the narrow coffin, and they become emblems of our affections—of pleasures remembered and hopes faded—wishes vanished, and scenes cherished in memory, all the more, because they can never return. We look to the far-off spring in other valleys—to the eternal summer beyond the grave, where flowers that never fade bloom in those starry fields, which no chilly winter ever blew over. They come upon us in spring like the remembrance of a pleasant dream—a vision that hovered above us in sleep, peopled with shadowy beauties and simple delights, embroidered with the richest hues of fancy. Sweet flowers!—that bring back again the scenes of childhood—faces remembered in youth—the love that knew not it was love!" Even in our rooms they conjure up images of the mossy bank by the wayside, where we so often gazed upon the early primroses. They recall the sheltered glen, darkly green, filled with the perfume of violets, that showed like another sky amid the scene. The sweet song of the village maiden again rings upon our ears while we gaze on them, and we remember those modest eyes "that ever loved the ground," and the time we first beheld them.

Fix'd as a pilgrim's—wilder'd in his way,  
Who dare not stir by night, for fear to stray,  
But stands with awful eyes to watch the dawn of day.—DEYDEN.

What a mystery seems to hang about an old wood when the trees are covered with leaves, and the underwood is thick and impassable. We know not what flowers are growing in those untrodden solitudes; we cannot tell what birds build and hide in those hidden coverts; what badgers, weasels, polecats, marten, and snakes burrow, hide, climb, and bask, under ground and in the hollows of trees, about the great mossy branches, and on the unexplored banks, which accumulated leaves, and natural water-courses, and huge fallen trees have formed. It is this very difficulty of seeing beyond the few feet around us, that makes a wood so solemn. A hill or a moorland may be lonely, but there the view is open, whereas in the heart of an old wood all around us is dim, shadowy, green, and mysterious. Many of the trees are large and aged; and we feel that we are in the presence of strange things, that have grown old in light and darkness for centuries; that they have outlived all other living things, and around them there hangs a kind of reverential awe, such as makes us marvel not that in the early ages, when England was first peopled, they were worshipped by the Druids and their followers. Then we come upon deep dells, over which the gnarled and withered stem leans, and the foliage darkens, and we marvel how these great hollows were first formed, for nowhere do they bear a trace of the hand of man. We know that the ancient Britons kept their corn in subterranean places, which have slept undisturbed through the silence of many centuries. All traces of the work of these early excavations is buried beneath the accumulated gatherings of a thousand autumns and winters, which have cast down and rotted their leaves.

Here quivering aspens bow before the gale,  
And hawthorns blossom hid in sunless shade;  
The mournful ring—love coos her tender tale,  
The holly's shining leaves are here display'd,  
While silver birches overhang the glade;  
The towering elm shelters the dusky rook,  
The hazel in green beauty is arrayed,  
The alder hangeth o'er the crisped brook  
In which the willow flowers in silence ever look.

And in such a spot the sudden starting of a large pheasant from out the deep underwood, as it goes with a loud "whur-r-r" high up amid the foliage, causes the lonely wanderer to spring back unconsciously, though he smiles the next moment at this needless alarm.

As Angling has already commenced, we shall glance at a few of the finny inhabitants of our streams and rivers; first beginning with the stickleback, with its three spines, which can either be raised or lowered at will, and which seems

fit for nothing but food for other fishes and the amusement of boys. "I know not," says quaint old Izaak Walton, "where he dwells in winter, nor what he is good for in summer." He is, however, a great ornament to a glass globe; his colours are splendid; and by a constant changing of the water every two or three days, he has lived in his glass house for two or three years. The minnow, which first appears in March, although so small, has a flavour equal to many of our more celebrated fish, especially when fried with the flowers of primroses and cowslips, and the yolks of eggs and butter—a dish delicate enough for the most imaginative of poets, though it was at one time very common. In summer they are full of spawn, and not so good as in spring. Everybody knows that a small red worm is a sufficient bait, that three or four hooks may be used at once, and sometimes as many fish be drawn out at a time, for they always bite eagerly.

The bull-head, or miller's-thumb, with its immense head, large mouth, and spiny teeth, though anything but pleasant to look upon, forms an excellent dish, and those who have never tasted it will be agreeably surprised when they partake of one, and regret that they are not to be met with oftener at the fishmonger's. He is very fond of hiding under a stone, beside which, if a worm be dropped down gently, he will dart upon it in an instant, for he never stops to consider a moment about the matter if the hook is well concealed.—The loche we have often caught in the river Trent; it is a long fish, without either scales or teeth, bearded like a barbel. It is often used as a bait, especially for eels. Next in succession comes the gudgeon, which, though "little, is good," it is well known to the London angler, being plentiful in the Lea river—that river of old historical associations, where English Alfred drew off the water and left the fleet of Hastings, the celebrated Sea-king, high and dry around. It is rather a bandsome-looking fish, broad in the middle, with a beautifully marked tail and back fin, and may be caught either with worm, gentle, or paste. The bait must touch the ground. It is fond of a gravelly situation. The bleak, or whiting, is a well-known fish, always on the move; is about six inches long, with large eyes, a small head, and silvery gills: the back is of a beautiful green colour. They are famous fly-catchers, and, from their rapid motions, are called water-swallows. Two or three hooks may be used, as in minnow fishing, and the same baits as for gudgeons. The flavour is very indifferent.

The dace, dart, shallow, dare, or by whatever name it is called, is a fast breeder, and during the summer months, very partial to playing about on the sunny surface of the water. It is found in many of our rivers, and appears to prefer such spots as are in constant motion, through the rolling of rapid currents and eddies. In cold weather it prefers a quiet hole, or the sheltered part of a stream overhung by the tall water-falls or tufted rushes. Its body is rather long, the back of palish green, varied with dusky marks, while the belly has a silvery appearance, and the fins a pale red tinge. It will almost take any bait in spring; neither worms, larvae of beetles, grubs, caterpillars, or even water-mails, come amiss to it. They are sharp quick biters, requiring to be struck suddenly; and, as they are not to be drawn out without a good struggle, it is necessary to use strong tackle. Blaine makes mention of a pie made of dace and roach, which seems to have been

A dainty dish to set before a King;  
For when the pie was open the guests began to sing.

And, according to his account, they would willingly have dined off such a pie, once a week, at least, as long as they lived. Roach-fishing so nearly resembles that of dace, that we shall not pause to describe it. The beautiful gold-coloured circle of the eye and the rich red fins are familiar to those who have seen the roach in good condition; nor is it to be mistaken, on account of its great breadth when laid on its side. It affords excellent sport to the angler, and has been caught from a pound to two, or more, in weight. We pass by the rudd, a fish which has led to much discussion, some considering it a species of dace, and others of carp, and come to the bream, with its high arched back, forked tail, and large eyes. When in fine condition and a good size, the bream has a rich golden colour, in place of the silvery hue it before wore. They are a cautious race, and the angler ought not to throw his shadow upon the water, but keep himself as much out of sight as possible. A warm, cloudy day is considered the most favourable for biting, and a red worm the best of baits. He is a fish rather too fond of sucking the bait, but this can be easily detected by watching the float: for our part, we never struck in too great a hurry when we detected this half-nibbling; the better plan, we think, is to let him get well hold, or go if he chooses, though it is necessary to examine the bait after his departure. We must reserve a few remarks on this old and pleasant occupation for next month.







		SUN.					MOON.					DURATION OF MOONLIGHT.				HIGH WATER		Day of the Year.
		SOUTH.					SOUTH.					Before Sunrise.		After Sunset.		AT LONDON BRIDGE		
M	D	ANNIVERSARIES, OCCURRENCES, FESTIVALS, &c.	Rises.	Before 12 o'clock.	Height above horizon.	Sets.	Rises.	Afternoon.	Afternoon.	Height above horizon.	Sets.	Morning.	O'Clock. 1h. 2h. 3h.	Moon's Age.	O'Clock. 9h. 10h. 11h.	Morning.	Afternoon.	
1	Te	<i>Philip. James</i>	4 35	3 3	53 <sup>3</sup> / <sub>4</sub>	7 21	1 6	8 3	45 <sup>3</sup> / <sub>4</sub>	2 20						9 0	9 40	121
2	W	Regulus souths 7h. 15m. P.M.	4 33	3 11	54 <sup>1</sup> / <sub>2</sub>	7 23	2 15	8 50	41 <sup>3</sup> / <sub>4</sub>	2 48						10 20	11 0	122
3	Th	Invent. of Cross.	4 31	3 17	54 <sup>1</sup> / <sub>2</sub>	7 24	3 21	9 35	37 <sup>3</sup> / <sub>4</sub>	3 14						11 33	At Mid-night	123
4	F	Beta Leonis souths 8h. 30m. P.M.	4 29	3 24	54 <sup>1</sup> / <sub>2</sub>	7 26	4 28	10 20	33 <sup>3</sup> / <sub>4</sub>	3 38						No Tide.	0 27	124
5	S	[ <i>St. John.</i>	4 28	3 29	54 <sup>1</sup> / <sub>2</sub>	7 27	5 33	11 4	29 <sup>3</sup> / <sub>4</sub>	4 2						0 50	1 12	125
6	S	4TH S. aft EASTER	4 26	3 35	55	7 29	6 37	11 49	26	4 26						1 33	1 53	126
7	M	[East. Term ends	4 24	3 39	55 <sup>1</sup> / <sub>2</sub>	7 30	7 39	Morning.	23	4 53						2 10	2 25	127
8	Th	Half Quarter.	4 22	3 43	55 <sup>1</sup> / <sub>2</sub>	7 32	8 39	0 34	20 <sup>3</sup> / <sub>4</sub>	5 22						2 45	3 0	128
9	W	Corporation and Test Acts repealed, 1523	4 21	3 47	56	7 34	9 37	1 20	19 <sup>3</sup> / <sub>4</sub>	5 56						3 15	3 30	129
10	Th	Spica Virginis souths 9h. 58m.	4 19	3 50	56 <sup>1</sup> / <sub>2</sub>	7 35	10 29	2 7	18 <sup>3</sup> / <sub>4</sub>	6 35						3 50	4 5	130
11	F	[ <i>Old May Day.</i>	4 17	3 52	56 <sup>1</sup> / <sub>2</sub>	7 36	11 16	2 54	19	7 19						4 20	4 35	131
12	S	[ <i>Old May Day.</i>	4 16	3 54	56 <sup>1</sup> / <sub>2</sub>	7 38	11 58	3 42	20	8 10						4 55	5 10	132
13	S	ROGATION SUN.	4 14	3 55	57	7 39	Morning.	4 29	22	9 4						5 30	5 50	133
14	M	The ILLUSTRATED LONDON NEWS was first published on May 14, 1842	4 12	3 55	57 <sup>1</sup> / <sub>2</sub>	7 41	0 35	5 17	24 <sup>3</sup> / <sub>4</sub>	10 5						6 10	6 35	134
15	Th	Zeta Bootis souths 10h. 9m. P.M.	4 11	3 55	57 <sup>1</sup> / <sub>2</sub>	7 42	1 7	6 4	28 <sup>3</sup> / <sub>4</sub>	11 9						7 0	7 27	135
16	W	ASCENSION DAY.	4 10	3 54	57 <sup>1</sup> / <sub>2</sub>	7 44	1 36	6 52	32 <sup>1</sup> / <sub>2</sub>	Afternoon						8 0	8 37	136
17	Th	[ <i>Holy Thursday</i>	4 8	3 53	58	7 45	2 4	7 41	36 <sup>3</sup> / <sub>4</sub>	1 29						9 15	9 50	137
18	F	[ <i>Holy Thursday</i>	4 7	3 51	58	7 47	2 31	8 30	41 <sup>1</sup> / <sub>2</sub>	2 42						10 25	11 0	138
19	S	<i>St. Dunstan.</i>	4 5	3 49	58 <sup>1</sup> / <sub>2</sub>	7 48	2 57	9 21	46 <sup>1</sup> / <sub>4</sub>	3 59						11 30	11 55	139
20	S	SUN aft ASC. DAY	4 4	3 46	58 <sup>1</sup> / <sub>2</sub>	7 49	3 26	10 15	50 <sup>1</sup> / <sub>2</sub>	5 18						No Tide.	0 25	140
21	M	Arcturus souths at 10h. 10m. P.M.	4 3	3 42	58 <sup>1</sup> / <sub>2</sub>	7 51	3 59	11 12		6 39						0 45	1 10	141
22	Th	Trin. Term begins	4 1	3 38	59	7 52	4 37	Afternoon	53 <sup>3</sup> / <sub>4</sub>	7 58						1 35	1 55	142
23	W	Epellon Bootis souths at 10h. 33m. P.M.	4 0	3 34	59 <sup>1</sup> / <sub>2</sub>	7 53	5 23	1 14	56	9 10						2 20	2 45	143
24	Th	Qu Vic. born 1819	3 59	3 29	59 <sup>1</sup> / <sub>2</sub>	7 55	6 18	2 16	56 <sup>3</sup> / <sub>4</sub>	10 14						3 10	3 35	144
25	F	Pr Helena b 1846	3 58	3 23	59 <sup>1</sup> / <sub>2</sub>	7 57	7 21	3 17	56	11 7						3 55	4 20	145
26	S	Ox. Term ends	3 57	3 17	59 <sup>1</sup> / <sub>2</sub>	7 58	8 29	4 15	54	11 50						4 45	5 10	146
27	S	PENTECOST. Whit	3 56	3 10	59 <sup>1</sup> / <sub>2</sub>	7 59	9 41	5 9	51	Morning.						5 35	6 0	147
28	M	SUNDAY. Camb. Term divides.	3 55	3 3	60	8 0	10 54	6 0	47 <sup>1</sup> / <sub>4</sub>	0 25						6 30	6 57	148
29	Th	K. Chas. II. rest.	3 54	2 56	60 <sup>1</sup> / <sub>2</sub>	8 1	Afternoon.	6 48	43 <sup>1</sup> / <sub>4</sub>	0 54						7 30	7 57	149
30	W	Ember Week. Ox.	3 53	2 48	60 <sup>1</sup> / <sub>2</sub>	8 2	1 12	7 34	39	1 21						8 32	9 15	150
31	Th	Term begins	3 52	2 40	60 <sup>1</sup> / <sub>2</sub>	8 3	2 20	8 19	34 <sup>1</sup> / <sub>2</sub>	1 41						9 45	10 15	151



## MAY.

THE SUN is in the sign Taurus till the 21st, on which day, at 5h. 18m. A.M., he enters Gemini (the Twins). On the 1st he is 95,792,000 miles from the earth. He rises on the 1st, at 1 $^{\circ}$  N. of E.N.E.; and on the 25th, at the N.E. by N. He sets on the 1st, at 1 $^{\circ}$  N. of W.N.W.; and on the 25th, at the N.W. by N. points of the horizon. His times of southing, in common clock time, and his height in degrees at the same time, are given for every day on the opposite page.

THE MOON is in the constellation Leo on the 1st and 2nd; and in Virgo from the 3rd to the 5th; in Libra from the 6th to the 8th; in Ophiuchus on the 9th and 10th; near Aquila and Sagittarius on the 11th and 12th; in Capricornus on the 13th; in Aquarius from the 14th to the 16th; in Pisces on the 17th; in Cetus on the 18th; near both Cetus and Pisces on the 19th; in Cetus on the 20th and 21st; in Taurus on the 22nd and 23rd; in Gemini on the 24th and 25th; in Cancer on the 26th; in Leo from the 27th to the 29th; and in Virgo till the end of the month.

She rises before the Sun sets, till the 6th; during the night, till the 21st; and after the Sun rises, from the 22nd. She sets before the Sun rises, till the 6th; during the day, till the 21st; and after the Sun sets, from the 22nd: for the actual time, see the opposite page.

She is on the Equator on the 3rd, on the 18th, and on the 31st. Her time of southing, in common clock time, and her height in degrees at the same time are given for every day on the opposite page.

She is near Mars and Saturn on the 18th, Uranus on the 19th, Venus on the 21st, Mercury on the 23rd, and Jupiter on the 23rd.

She is full on the 7th, and new on the 22nd, but without an Eclipse at both times.

MERCURY is in the constellation Aries till the 6th; in Taurus from the 7th to the 27th; and in that of Gemini from the 28th.

He is an evening star from the 4th; and sets on the 10th at 50m.; on the 15th, at 1h. 24m.; on the 20th, at 1h. 50m.; on the 25th, at 2h. 3m.; and on the 31st, at 2h. 6m. after the Sun sets. These intervals of time are the longest in the year. At the end of this month, and the beginning of the next, this Planet is more favourably situated for observation than at any other time during the year. He sets on the 1st at the W.N.W.; on the 10th, at N.W. by N.; and on the last day, at 7 $^{\circ}$  N. of N.W. by N. He is moving eastward among the stars during the month; is near Venus on the 8th, and the Moon on the 23rd. On the 3rd he is in superior conjunction with the Sun. His motion among the stars is very rapid after the middle of the month; and his path is shown in the annexed diagram, together with his telescopic appearance at different times in the month.

PATH OF MERCURY FROM MAY 12 TO MAY 31 WITH RESPECT TO THE FIXED STARS, AND THE TELESCOPIC APPEARANCE OF THE PLANET.



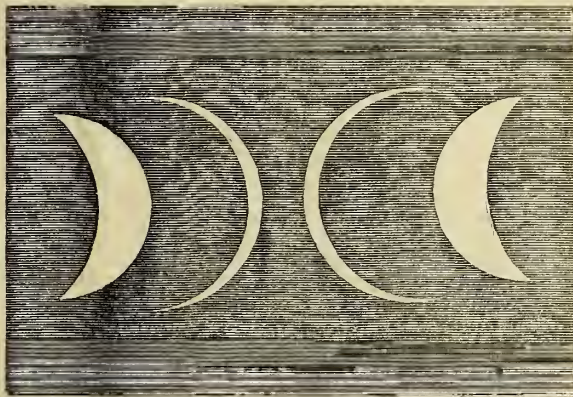
The appearances of the planet are drawn upon a scale of 40 seconds of arc to one inch; and the path of the planet is on a scale of 12 degrees to one inch.

VENUS is in the constellation Taurus till the 10th, and in that of Aries from the 11th to the 31st.

She is an evening star till the 14th, and a morning star after this time. She

sets on the 1st at 9h. 27m. P.M.; on the 6th, at 3h. 49m.; and on the 14th, at 7h. 41m. P.M. She rises on the 14th at 3h. 40m. A.M.; and on the last day, at 2h. 47m. A.M. She sets, on the 1st, at 6 $^{\circ}$  N. of N.W. by N.; and on the 14th, at the N.W. by N. She rises, on the 14th, at N.E. by N.; and on the 31st, at 2 $^{\circ}$  N. of E.N.E. She is moving slowly westward among the stars throughout the month; is near Mercury on the 8th, and the Moon on the 21st. She is in inferior conjunction with the Sun on the 12th. Her telescopic appearance undergoes rapid changes during the months of April, May, and June; as shown in the annexed engraving. The first appearance is that of the Planet about April 7; the second is that towards the end of April; the third is that towards the end of May; and the fourth is that about the middle of June.

TELESCOPIC APPEARANCES OF VENUS DURING THE MONTHS OF APRIL, MAY, AND JUNE, 1849.



April 7. April 27. May 23. June 18.

Scale, 40 seconds of arc to one inch.

MARS is in the constellation Pisces till the 20th, on which day he passes into Cetus.

He is a morning star; and rises, on the 1st, at 3h. 8m. A.M. at 1 $^{\circ}$  N. of E. by S.; on the 23rd, at 2h. 7m. A.M., at the E.; and on the 31st, at 1h. 47m. A.M. His times of southing are given below; and he sets at about 2h. P.M. He is moving eastward among the stars; is near the Moon on the 18th, and Saturn on the 25th.

JUPITER is in the constellation Cancer till the 16th; and in that of Leo from the 17th.

He is an evening star, and rises between 9h. and 11h. A.M.; souths at an altitude of 56 $^{\circ}$  on the 1st, decreasing to 55 $^{\circ}$  on the last day; and sets on the 1st at 2h. 5m. A.M., at 6 $^{\circ}$  N. of W.N.W.; and on the last day at 0h. 13m. A.M., at 4 $^{\circ}$  N. of W.N.W. He is moving eastward among the stars; and is near the Moon on the 27th.

JUPITER'S SATELLITES.—The Emersions of the 1st, 2nd, and 3rd are visible those of the 1st take place at the distance of one half; those of the 2nd at the distance of one; and that of the 3rd at the distance of one and a half diameter from the body of the Planet. An immersion of the 4th satellite takes place on the 11th, and it disappears at the distance of one diameter. All these phenomena take place on the left hand of the Planet as seen through a non-inverting telescope, and on the right hand as seen through an inverting telescope.

SATURN is in the constellation Cetus throughout the month. He is a morning star; and rises on the 1st, at 3h. 38m. A.M.; on the 15th, at 2h. 46m. A.M.; and on the 31st, at 1h. 45m. A.M.; on the 19th he rises at the east point of the horizon; is moving eastward among the stars, and is near the Moon on the 18th.

URANUS rises a little N. of E. by N. on the 1st, at 3h. 3m. A.M.; and on the last day at 2h. 7m. A.M. He is moving slowly eastward among the stars, and is near the Moon on the 19th.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					JUPITER'S SATELLITES.				OCULTATIONS OF STARS BY THE MOON.				
	Mercury.		Venus.		Mars.		Jupiter.		Saturn.		Names of the Stars	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
	Morning.	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon				
	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.				
1	11 47	1 0	8 39	6 26	9 38									
6	Aftern.	0 31	8 33	6 8	9 21									
11	0 33	At noon.	8 27	5 50	9 3									
16	0 55	Morn.	8 22	5 32	8 45									
21	1 15	11 0	8 16	5 15	8 27									
26	1 30	10 34	8 10	4 53	8 9									
31	1 39	10 11	8 4	4 41	7 51									
						Eclipses of								
						1st. Sat.		2nd. Sat.						
						Emersion. E.		Immersion. I.						
						D. H. M.		D. H. M.						
						5 10 40 P.M. E.		9 10 51 P.M. E.						
						21 8 59 P.M. E.								
						28 10 55 P.M. E.								
								3rd Sat.						
								26 11 26 P.M. E.						
								4th Sat.						
								11 10 14 P.M. I.						

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	Full Moon	Last Quarter	New Moon	First Quarter	Apogee	Perigee
1	7d. 7h. 7m. A.M.	15 10 30 A.M.	22 7 37 A.M.	28 11 23 P.M.	9 9 0 P.M.	22 6 0 P.M.
6						
11						
16						
21						
26						

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
	Ascension	Declination	Ascension	Declination	Ascension	Declination	Ascension	Declination	Ascension	Declination	Ascension	Declination
1	2h. 24m	13 $^{\circ}$ 47'	3h. 38m	24 $^{\circ}$ 54'	23h. 16m	6 $^{\circ}$ 22'	9h. 4m	17 $^{\circ}$ 45'	0h. 15m	0 $^{\circ}$ 40'	1h. 27m	8 $^{\circ}$ 33'
6	3 6	17 51	3 28	23 39	23 30	4 54	9 6	17 38	0 17	0 28	1 23	8 39
11	3 49	21 17	3 17	21 59	23 34	3 25	9 8	17 30	0 19	0 17	1 29	8 44
16	4 32	23 46	3 5	20 4	23 58	1 56	9 10	17 21	0 21	0 6	1 30	8 50
21	5 11	25 12	2 55	18 10	0 12	0 27	9 12	17 10	0 22	North.	1 31	8 56
26	5 45	25 39	2 49	16 29	0 25	North.	9 14	16 59	0 24	0 13	1 32	9 1





Hark! how Delight  
Knocks with her silver wings at every sense,  
For merry May her pastimes doth condescend.  
Hark! how the peasants, with their music loud,  
Raise many an ancient ditty; while a crowd  
Of snow-clothed maidens, crowned with garlands gay,  
Are tripping lightly round the Queen of May.—*Cleveland's May-Day.*

ONE of the oldest and most poetical of all our country amusements was the celebration of May-day. Mention is made of it by our earliest chroniclers and poets, and so great is its antiquity, that the very origin is lost. Some believe that it is a custom which has descended down to us from the times of the old Druids; others, that it was introduced into England by the Romans. But, as it is not mentioned by any historians who have recorded the manners of that period, I shall leave the matter to rest where it is, for it is sufficient to know, that, four or five hundred years ago, May-day was a great holiday in England. Our forefathers were great lovers of nature, had more holidays than we have now, and had few of those in-door amusements which we possess; and I have always considered May-day as one of those joyous celebrations with which they welcomed the return of spring—the season which brought back the birds, and flowers, and long green leaves, and threw open once more, as it were, the gates which led to their summer amusements, their joyous out-of-door pastimes, which, during the long, dark winter, had been closed. It seemed but natural that they should set

out on their merry pilgrimage to the woods, when the trees were again putting on their green garments; when they could, on the darkening hedges, point out the very spots where the May blossoms would be hung; when the daisies were once more strewn, like radiant pearls upon the grass, and, in deep woodland nooks, the blue-bells lay sleeping like an azure cloud that had fallen from heaven; and primroses and violets nestled side by side on the warm and sunny banks. It was then that they sallied forth, with axe in hand, to fell one of the tall, straight, tapering trees which grew in the forest, for they always brought home the most beautiful one they could meet with for their May-pole. Sometimes it was dragged from the woods by oxen garlanded with flowers, and accompanied by music; while men and maidens, bearing green boughs, swelled the procession; and thus they brought home May. Spenser, who lived in the reign of Queen Elizabeth, presents us with the following description of bringing home May, in his "Shepherd's Calendar." The scene here painted he had, no doubt, often witnessed.—



Young folk now flock in every where,  
To gather May-bushes and suckling brere,  
And home they hasten, the poets to dight,  
And all the church pillars, ere daylight,  
With hawthorn-buds, and sweet eglantine,  
And garlands of roses, and sops of wine.  
Even this m'ning—no longer ago,  
I saw a shoal of shepherds out go,  
With singing, and shouting, and jolly cheer;  
Before them went a lusty labourer,  
That unto many a hornpipe play'd  
Where to they danced, each one with his maid.

To see these folks making such jovance,  
Made my heart after the pipe to dance.  
Then to the green wood they speed them all  
To fetch home May, with their musical:  
And home they bring him in a royal  
throne,  
Crowned as king; and his queen, fair one,  
Was Lady Flora, on whom did attend  
A fair flock of fairies, and a fresh band  
Of lovely nymphs. O that I were there,  
To help the ladies their May-bush to bear.

On the villago green, the tall May-pole was reared, amid merry shouts and loud huzzas, and the deep sounding of music; they built up arbours out of the branches they brought from the forest; they decorated the fronts of their houses with boughs; and on the tall May-pole hung many a garland of beautiful flowers. A bower was placed at the head of these arbours, which stood higher than the others. Within and without it was decorated with flowers, and set apart for the Queen of May, who was, generally, some peasant girl, selected by the unanimous consent of her companions. Sometimes the daughter of the Lord of the Manor presided as May Queen, and the whole family issued from their old ancestral hall to join in the May-day games. Then there were rustic youths dressed up in the costume of Robin Hood and his merry men, and Maid Marian; recalling the days of old, when these daring outlaws were the dread and pride of Sherwood Forest, plundering the rich to feed the poor; and chasing the dun deer through the thickets, in spite of Norman keepers and cruel forest-laws.

It was a season of rejoicing throughout the length and breadth of the land. Nor was London a bit behind in the celebration of this ancient festival. Even in the City, the tall May-pole was erected; and any one who had passed along Cornhill on May-day a few centuries ago, would have seen green arbours erected there, and huge oaken boughs hanging over the street, and the milk-maids, and all the merry old citizens, with their wives, daughters, maids, and apprentices, congregated about the May-pole, many of them dressed in old fanciful costumes, and giving themselves up to all the fun and jollity of May. But time has not preserved even the names of the mazy measures which they danced; and nearly all we know of the ancient pipe and tabor, the favourite music to which they timed their footsteps, is gathered from glancing at some scarce engraving. "Gone are the days of Gamelyn." "The May-pole," says an old writer, "was consecrated to the Goddess of Flowers, and the garlands were left upon it the whole year, without being disturbed by any one;" and well remember passing through a village, at the end of April, in which a tall May-pole stood, only a few years ago, and seeing the last year's garlands hanging upon it, all wan and withered, and beaten by the storms of the past winter.

In those times, it seems to have been a custom to set out for the woods soon after midnight, so that by sunrise the May-pole was felled, and the branches gathered, and the procession ready to start, on its way home. In a book written during the reign of Queen Elizabeth, it is stated that sometimes as many as forty yoke of oxen, each having a sweet nosegay tied to the tip of his horns, were employed to draw home the May-pole; that they covered it all over, from top to bottom, with flowers and sweet herbs, which they bound round with strings; fastening, at equal distances, cross bars upon it, to the end of which they attached garlands; and thus decorated, it was hoisted up, amid the leaping and dancing and joyous shouts of the assembled multitude.

A sum of money was allowed in those days for the erection of green arbours around the May-pole. The King and Queen, or Lord and Lady of May, as they were called, were dressed out in scarfs and ribbons, and plumes of feathers, and made as fine as it was possible to array them.

Henry the Eighth, one morning in May, attended by several of his nobles, dressed in the quaint costume of Robin Hood and his merry men, suddenly entered the chamber where the Queen and her ladies were seated, much to the alarm of the latter, who were thus taken by surprise; for it appears that the King and his followers were armed with bows and arrows, and swords and bucklers, like the outlaws of old; and fine screaming there was, no doubt, amongst the Queen and her ladies, when their apartment was broken into by a troop of armed men; who, however, instead of carrying them off, like the ancient freebooters of the forest, and keeping them prisoners under the greenwood tree until they paid down a handsome ransom in gold, contented themselves by performing several wild woodland dances, then taking their departure.

The same Monarch, also, once rode out with his Queen and a whole concourse of nobles, one fine May morning, to the top of Shooters-hill, above Greenwich, and there they were received by a large troop of men, amounting to about two hundred, who were all dressed as foresters, in a costume of Kendal green, and headed by a captain, whom they called Robin Hood. These May-day foresters, dressed up for the occasion, amused their Royal and noble visitors by showing them their skill in archery; and when this was over each blew his huckle-bone, and conducted the King and his train into a wood under the hrow of the hill, where a large arbour was erected of green boughs, consisting of a hall and two chambers, all decorated with flowers and sweet herbs; and here a mighty feast stood ready prepared, quite in keeping with the scene, consisting of venison, venison-pasties, and a copious supply of the blood-red wine, for such, the old ballads say, often formed the forest-banquet of Robin Hood and his merry men. A joyous May-day must that have been, presided over by the King and Queen of England; for Henry the Eighth was then a young man, greatly beloved by his people; and in the laughing merry Monarch who presided over that woodland repast, who drank deep healths to the Lord and Lady of May, and was the foremost to lead off the joyous dance in that summer hall, roofed over with green branches,—few would have traced the future murderer, or read in the outlines of the then jocund Monarch the cruel beheader of so many of his wives. For the Royal tiger seemed then as harmless and playful as a lamb; and those who were around him but little dreamed that his memory ever after, throughout all time, would be preserved in one of the darkest stains that ever fell, and lay an eternal blot upon the pages of history.

On their return from this woodland banquet, they were met by two ladies, richly attired, who rode in a beautiful chariot, drawn by five horses; and on the back of each horse was also seated a lady, one of whom was called the Lady of Showers; another, the Lady of Green; the third, the Lady of Vegetation; the fourth, of Pleasure; and the fifth, of Sweet Odour. Of the two who occupied the chariot, one was called the Lady of May, and the other the Lady of Flowers; and they entertained the assembled company with songs, as they returned to Greenwich. Such was an English May-day in the reign of Henry VIII.

But few works are fraught with more amusement than our old English treatises on angling: there is such a simple cunningness about these honest old fishermen, that it is difficult to refrain from laughter while perusing the most serious passages. You almost fancy that many of these quaint writers must have had certain prayers, which they ever and anon repeated while following so peaceful an occupation—brief pious sentences, offered up in the full simplicity of the heart while dropping in the line, over a bite, or when the funny prey was landed. In one hook the angler is recommended "to be

full of humble thoughts, when occasion offers; to kneel, lie down, or wet his feet and hands, as often as there is any advantage to be gained thereby;" nor is he to mind "a little dirty water or mud;" if he can get anything out of it. He is also advised to render himself skilful in music, so that whenever his spirits are melancholy, or his thoughts heavy, "he may remove the same with some godly hymn or anthem, of which David gives many examples." Again, he is to be strong and valiant, not to be amazed at storms, nor frightened at thunder. Nor must he, "like the fox which preyeth upon the lambs, employ all his labour and cunning on the smaller fry; but, like the lion that seizeth elephants, think the greatest fish that swims a reward little enough for the pains he endures." He must also "be patient, not feel vexed when he loses his prey, although it is almost in his hand." Neither must he swear: and we still retain the old saying, "those who swear will catch no fish;" besides it would hardly have been the thing to have ripped out a thundering oath, after having chaunted some "godly hymn or anthem." The angler also ought to be "a scholar and a good grammarian," as, no doubt, the fish being an ancient people, and from the earliest ages acquainted with respectable society, must have felt had grammar grate again upon their ruddy gills. Further, he must have sweetness of speech, to entice others to follow his art; have also a knowledge of the sun, moon, and stars; be conversant with wind and weather; and have a constant and settled belief that where "the waters are pleasant and anything likely, there the Creator of all good things hath stored up much of his plenty." How religiously did these old rascals set about a little quiet murder! thanking Heaven when they succeeded, and, as Cromwell said, "had good execution."

But we must not forget the business on hand, which is to continue our remarks on angling from April; and these must necessarily be brief. From early spring, until the close of autumn, perch angling is pursued; they are very fond of lingering in shadowy places, as bridges, old mill-dams, and flood-gates, and such like quiet spots, where they readily take the bait. The perch is a beautifully marked fish; the back and a portion of the sides are of dark green, varied with black, while the belly is white and red. In form it is deep, arched, and has a large mouth, with rich golden irides. It will bite greedily at a worm.

As there are so many kinds of trout, I must confine myself to the common one, which is generally from twelve to fifteen inches in length, is of a dirty yellow colour, brownish on the back, and spotted. Early in spring the trout will take a ground bait, for which nothing can be better than a worm. Fly-fishing for trout would occupy the whole space we dedicate to the description of the month, so we must pass it by. Remember, in fishing for trout, to keep out of sight; once throw your shadow upon the water, and away the shy visitor goes. As soon as you have landed a trout, kill it—a sharp blow on the head is pretty sure to finish it; and this is better than leaving it to pant on the grass, or gasp in your fishing basket, to say nothing of the richness added to its flavour. The grayling is fond of clear, rapid streams, especially such as flow through hilly countries. It is rather less than the trout, beautifully formed; the head small; the eyes prominent, and circled with silver; the teeth very small; the head a dusky colour, and the gills a bright green, which in time become dark. The back is of a greenish blue tinge; the sides of the richest silvery grey, though when first caught glittering in the sunlight like gold, and almost gaudy, through the rich dark irregular spots which dot the shifting silver. It is a rapid swimmer, and is lost to the eye in a moment. When full-grown, it is about fifteen or sixteen inches in length; and although taken all the year round, is not considered in season until September, and from then to February or the middle of spring. At the latter season, they will take almost any bait used in bottom fishing, such as worms, gentles, grubs; not are they at all particular, if they have had a narrow escape from the hook, of attacking the bait again, even with a toru jaw. The tackle ought to be fine. The flesh is very white, and the flavour highly prized. "No life," says Walton, "is so happy and so pleasant as the life of a well-governed angler: for when the lawyer is swallowed up with business, and the statesman is preventing or contriving plots, then we sit on cowslip banks, hear the birds sing, and possess ourselves in as much quietness as the silent silver streams which we see glide so smoothly by us."







M	W	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT.				HIGH WATER			Day of the Year.
			SOUTHS.				SOUTHS.				Before Sunrise.				AT LONDON BRIDGE.			
			Rises	Before 12 o'clock.	Height above horizon.	Sets.	Rises.	Afternoon.	Height above horizon.	Sets	Before Sunrise, O'Clock.	1h. 2h. 3h.	Moon's Age.	After Sunset, O'Clock.	9h. 10h. 11h.	Morning.	Afternoon	
1	F	<i>Nicomede</i>	3 51	2 31	60	8 4	3 25	9 33	10 2	2 9								
2	S	Antares souths at 11h. 31m. P.M.	3 50	2 22	60	8 5	4 28	9 47	10 27	2 32								
3	S	<b>TRIN. SUNDAY</b>	3 50	2 13	60	8 6	5 33	10 32	11 24	2 57								
4	M	Spica Virginis souths at 8h. 21m. P.M.	3 49	2 3	61	8 7	6 22	11 17	12 1	3 25								
5	Tu	<i>St. Boniface</i>	3 49	1 53	61	8 8	7 31	Morning.	19 1	3 57								
6	W	Eta Bootis souths at 8h. 46m. P.M.	3 48	1 42	61	8 9	8 25	0 4	18 1	4 34								
7	Th	<i>Corpus Christi</i>	3 47	1 31	61	8 10	9 16	0 51	18 1	5 16								
8	F	Arcturus souths at 8h. 59m. P.M.	3 47	1 20	61	8 11	9 59	1 39	19 1	6 3								
9	S	Epsilon Bootis souths at 9h 25m P.M.	3 46	1 9	61	8 12	10 38	2 26	21 1	6 56								
10	S	<b>1st S. aft. TRIN.</b>	3 46	0 57	61	8 12	11 11	3 14	23 1	7 55								
11	M	<i>St. Barnabas</i>	3 45	0 45	61	8 13	11 40	4 12	26 1	8 57								
12	Tu	Trin. Term ends	3 45	0 33	61	8 14	Morning	4 48	30 1	10 4								
13	W	Beta Librae souths at 9h. 39m. P.M. [solara, 1809]	3 45	0 21	61	8 15	0 8	5 33	34 1	11 12								
14	Th	Battle of Sara-	3 45	0 8	61	8 16	0 33	6 22	39 1	Afternoon								
15	F	Alpha Serpentis souths at 9h. 59m. P.M.	3 44	After 12 o'clock.	61	8 16	0 57	7 11	44 1	1 36								
16	S	Antares souths at 10h 39m P.M.	3 44	0 17	62	8 16	1 27	8 24	48 1	2 52								
17	S	<b>2nd S. aft. TRIN.</b>	3 44	0 30	62	8 16	1 55	8 56	52 1	4 10								
18	M	B. Waterloo, 1815	3 44	0 43	62	8 17	2 30	9 53	55 1	5 29								
19	Tu	Alpha Hercules souths at 11h. 16m. P.M.	3 44	0 56	62	8 18	3 10	10 53	56 1	6 45								
20	W	Acces. Queen Vic.	3 44	1 9	62	8 18	3 59	11 55	—	7 55								
21	Th	Proclamation	3 44	1 22	62	8 18	4 58	Afternoon	56 1	8 53								
22	F	Civil war in Paris,	3 45	1 35	62	8 19	6 8	2 0	55 1	9 45								
23	S	and Paris in a state of siege, 1848	3 45	1 48	62	8 19	7 20	2 58	52 1	10 25								
24	S	<b>3rd S. aft. TRIN.</b>	3 45	2 1	62	8 19	8 34	3 52	49 1	10 59								
25	M	Alpha Ophiuchi souths at 11h. 11m. P.M.	3 46	2 14	62	8 18	9 48	4 43	45 1	11 26								
26	Tu	Geo. IV. d., 1830	3 46	2 27	62	8 18	10 58	5 31	40 1	11 51								
27	W	Gamma Draconis souths at 11h. 29m. P.M.	3 46	2 39	61	8 18	Afternoon	6 17	36 1	Morning								
28	Th	Q. Vic. cro. 1838	3 47	2 52	61	8 18	1 15	7 13	32 1	0 14								
29	F	<i>St. Peter's Day</i>	3 48	3 4	61	8 18	2 10	7 45	28 1	0 38								
30	S	Alpha Lyrae souths at 11h. 55m. P.M.	3 49	3 16	61	8 18	3 24	8 30	25 1	1 2								



25



## JUNE.—WHITSUNTIDE PROCESSIONS.



When the merry bells ring round,  
And the loud robecks sound,  
To many a youth and many a maid  
Dancing in the chequer'd shade,  
And young and old come forth to play  
On a sunshine holiday—MILTON.

WHETHER Whitsuntide falls in May or June, it is always a season of great festivity; and, since so many old customs are dying away, we may consider it our greatest English holiday. In the country, nearly every club has its procession and feast at Whitsuntide; and almost every village and town is sounding with music; and in some large places half a dozen clubs may be seen marching to church, each with its band and banners, and every member in his holiday attire. We, who are dabblers in old black-letter lore, look upon these benevolent and useful institutions with great interest, knowing that such clubs or guilds, existed in England a thousand years ago—that the Saxons had their sick and burial societies, and that every brother who did not attend a funeral was then fined as now. According to these old Saxon laws, when a member died he was to be buried wherever he had desired; and, if any brother neglected to attend, he was fined a measure of honey: the club was to furnish half the refreshments consumed at the funeral, and each member was to pay twopence—a large sum, considering the value of money in those days, when a sheep could be purchased for a shilling, an ox for six, and four hens for sixpence. It is this very antiquity which renders these benefit societies so interesting in our eyes;

and as we know that they had their merry meetings as well as their "funeral marches," we never look upon them as they go "sounding through the town," without thinking that, above a thousand years ago, similar processions passed along the ancient streets of Saxon England.

Oh! what a jingling of bells is there on the morning of Whit-Monday. What a running to and fro from house to house—for the women have in many places their clubs as well as the men, and they are probably all going in procession to the same church. Nanny runs in to ask Betty how she looks in this or that; if her new gown "sits" nicely, or she should trim her cap with blue or pink; for it must be understood that no bonnets are allowed in the procession; if it rains, umbrellas may be carried. We shall commence with the ladies first. White dresses are, of course, prevalent, though they are agreeably relieved here and there with a gown or two of gaudy colours. The ladies who hold office walk behind the band, each carrying a neat white wand, adorned with ribbons and flowers; every fair member also bears a beautiful posy; you almost wonder where so many flowers could be gathered; but what they carry with them is nothing compared to the quantity which decorate the club-room in which they



will take tea in the afternoon. Gravely, stately, and good-humouredly do they proceed along, the single ones looking down as if ashamed, and seldom venturing to raise their eyes if passing by a house they are in the habit of visiting. Not so with the married women. They are on the look-out to acknowledge everybody they know; and at every recognition there is such a waving of handkerchiefs that you might almost fancy they were about to proceed on a very long journey, and were bidding farewell to their acquaintance. But the most amusing part is the children. They are stationed on every step or little eminence, the bigger brother or sister holding a lesser one in arms, and looking out eagerly for mother. The mother is all to them, and she also is watching anxiously. At last you hear the little voices exclaim, "Here she comes!" "There she is!" "That's her!" and she is sure to rush out of the ranks to give them something out of her pocket; and no end of kisses, with numberless admonitions to take care of themselves, and so on. And many a turn of the head will she give before she is out of sight. Among such processions as these we have seen faces and forms that would have arrested the eyes of both painter and sculptor, and shown them that the beautiful belongs not alone to either antiquity or Greece. We have also seen the hair arranged in such a chaste style, and so gracefully adorned with natural flowers, that many a haughty heiress would have been proud to have risen with her ringlets so arranged from the hands of a fashionable tiring-woman.

Their overpowering presence made you feel  
It would not be idolatry to kneel.

But, hang, bang! *tirra, tirra!* here they come—the "United Brothers." The blacksmith who heats the big drum will assuredly drive the ends in; he wields the drumsticks as if he had got a sledge-hammer in each hand, and the anvil before him. Oh! what a hammer—it takes four men to support it, and two others to keep it steady by holding the tasselled strings. It was painted by Paul, the house-painter; and he has been much prouder ever since he did it. It would hardly be admissible into the British Institution—but let that pass; were any one to venture to criticise the performance, he would be indignantly told that it cost above twenty pounds. Although the tailor is a little out of both time and tune, yet he blows lustily at the clarinet; and the young butcher is not to be found fault with, considering he has only practised on the huckle for about twelve months. What a jolly fellow that is who shakes the cymbals—his very eyes laugh again; what a clashing he makes; he cares nothing about time; "Make yourself heard, neighbour," is his answer. You can tell from his looks that he has already been busy with the ale-cup, and that he is not the only one. And those are the stewards. "Deary me!" exclaim the women, "who ever would think that was Trippet, the tripe-seller; or the other, Johnny Lee, who goes round repairing umbrellas?" but they are though; and are resolved to let you see what they can do when they choose: a nod from either of them is something to be thought of to-day, I can tell you; for they are the stewards, and were elected for the first time at the last meeting. Next club-feast-day two others will march, with the same staidness, in their places. When Trippet and Lee have served their twelvemonth, should they live fifty years after, everything they can remember will be recalled either as having transpired so many years before or after they were the stewards.

Bang, bang! All the windows are up; the whole street is crowded; women with children in their arms, and boys and girls, close in and follow the procession: the men walk two and two—there is about a yard's space between each couple. What a length the procession reaches! There are at least one hundred members "strong;" and the latter word is pronounced with something like an emphasis. True enough, they march oddly; a few are very careful, but these, no doubt, are younger members; the old United Brothers seem to jog along "cheek by jowl" anyhow as they can—they look as if they were used to it; they wear their honours without blushing, some, you see, with a flower held between the lips. This is very common in the country; every one has a posy in the button-hole of his coat, for that is in accordance with club orders. Now they near the church; they will never be able to get that large banner within the porch—but they have it; it required great care; and there will be a good deal of talk about after how the wind caught it at this corner, and how they staggered at that, and you would go away with an idea that a man must be to the "manner born" before he is ever able to bear a banner.

The clergyman invariably preaches a sermon, in which the words unity, brotherhood, good-fellowship, charity, duty, &c., occur a great many times. He also dines with the club, a sure guarantee that for some time after the cloth is removed good order will be maintained. There are two old club-mates who have sat together at the dinner for years, and have always introduced the same argument. One maintains that "Whatever is Right," the other takes the opposite side, and argues that, if it is so, "then Murder is Right." They always have a little knot of listeners, and are thought rather clever. The clergyman has, on one or two occasions, entered the field; but now he seems to be weary of it, and if appealed to admits "that much may be said on both sides." The dinner we pass over; the health of the retiring stewards is of course drunk, then Trippet and Lee have to say a few words; and if it is late in the evening a few of the brothers are sure to get rather boisterous, and to cry out "Go it Lee!" or Trippet. Some of their wives also occasionally drop in at the close of the day.

Summer has now thrown open her green doors; the whole landscape is richly hung with the most beautiful foliage; the fields are ankle deep in flowers, and the earth will never look more lovely than now. Nature everywhere holds high jubilee; bird and bee and brook have each found a voice, and all day long are calling to and answering each other. Beautiful are the mornings and evenings of June, when the dew hangs upon the blossoms, and all that sweet aroma, which the hot sun will exhale, floats about the earth. Thomson, in his "Castle of Indolence," has beautifully described the luxury of green fields at this season:—

Was nought around but images of rest—  
Sleep-soothing groves, and quiet lawns between,  
And flowery beds that slumberous influence cast,  
From poppies breathed; and beds of pleasant green,  
Where never yet was creeping creature seen.  
Meantime unnumber'd glittering streamlets play'd,  
And hurried everywhere their waters sheen,  
That as they bleek'd through the sunny glade,  
Though restless, still themselves a lulling murmur made.

Join'd to the prattle of the purling rills,  
Were heard the lowing herds along the vale,  
And flocks loud-bleating from the distant hills,  
And vacant shepherd's piping in the dale;  
And now and then sweet Philomel would wail,  
Or stock-doves plain amid the forest deep,  
That drowsy rustled to the sighing gale;  
And still a coil the grasshopper did keep;  
Yet all these mingled sounds inclined to sleep.

A wanderer in the country not only finds pleasure in the beauties of Nature, but feels a delight in witnessing the enjoyment of others, and in none more than seeing the children of the poor—those who have about them the stamp of City-courts and crowded alleys—running for once free and happy along the

green lanes and over the pleasant field-paths. It makes a kind-hearted man sigh to think how those little creatures, ordained naturally to be happy, are shut up in stifling rooms, or left to wander at will through the hot and suffocating streets, in too many instances without any one to care either for their moral or bodily wants. Such have we sometimes had around us for the distance of a mile or two. They were rummaging every hank, peeping into every hedge, and plucking every flower they came near; they seemed to run over as much ground as a dog: they were never still—but here, there, and everywhere; ever discovering some object, new and wonderful to them, such as they had never before beheld in their City alleys; a molehill prettily marked, or a little clump of moss, were marvels in their eyes. Then, what a long consultation would there be at the door of some road-side ale-house. They perhaps mustered three or four pence amongst the whole half-dozen; the hungriest were advocates for all penny-loaves—the extravagant for a pennyworth of cheese. What a half-hamful joy played about their little dirty faces, if any good-natured pedestrian stepped in, and, by contributing a few halfpence, settled the dispute, and for once allowed them to revel in (to them) a rich banquet of bread and cheese. City-bred although they were, there would be a look of mimed gratitude and delight, which proclaimed, in unmistakable though silent language, that those young hearts were not yet wholly corrupted, but that there lay the soil which might be made either to bear poisonous weeds or goodly fruit. In a City street their very language might perhaps shock the stranger; but here they are often met with in their best and gentlest moods. We have somewhere said—though we cannot now lay our hands upon the passage—that God still adorns the earth with trees and flowers as beautiful as ever waved in Eden, as if to prove to man, that however low he may have fallen, the lovely objects of field and wood have not degenerated; but that the rose is still as sweet, and the leaves as beautiful and green, as they were before man offended his Maker. All remains as lovely as when first fashioned by the great Creator. Nothing ever pained us more than the great sweeping Enclosure Act. It seemed as if the last link was severed that united man to the wonderful works of God—that he was no longer to "consider the tilles of the field how they grow."

There is a rural scene which somehow seems to linger upon our memory more than any other. We can recall it any time, from the trees that overhang the foot-path and throw their shadows into the water, to the very bend the river makes as it goes broadening out between the meadows, or circles like a belt of silver around the foot of the hills, until it diminishes like a bright cloud in the distance. We have often described it as seen in the early morning, or in the golden noon of day, and when the blue twilight has thrown over it a shadowy veil. Here sheep bleat, and jingle their musical bells as they crop the wild thyme from the beehaunted hillocks, or browse amongst the luxuriant clover in the neighbouring pastures: knee-deep the plump-sided oxen graze, or, chewing the cud, lie buried among the flowers of summer. The heavy waggon goes slowly rumbling up the steep acclivity, on the summit of which stands the old weather-beaten mill, through whose rent sails we can see patches of the bright sky behind. On every hand figures are crossing the landscape. We see the angler with his wicker basket borne on the end of his folded rod, which rests upon his shoulder. We see figures moving every way.

They come from still green nooks—woods old and hoary,  
The silent work of many a summer night,  
Ere those tall trees attain'd their giant glory,  
Or their proud tops did climb that cloudy height.  
They come from spot which the grey hawthorn's dight,  
Where stream-kiss'd willows make a silvery shiver.

Who can ever fully express the pleasures of a country life? says an old author, with the various delights of fishing, hunting, and fowling, with guns, greyhounds, spaniels, and several sorts of nets. What refreshment it is to behold the green shades—the beauty and majesty of the tall and ancient groves; to be skilled in the planting and training of orchards, flowers, and pot-herbs; to temper and allay these harmless employments with some innocent and merry song; to ascend sometimes to the fresh and healthful hills; to descend into the bosom of the valleys, and the fragrant dewy meadows; to hear the music of birds, the murmur of bees, the falling of springs, and the pleasant discourses of the old ploughman. These are the blessings which only a countryman is ordained to, and are in vain wished for by the denizens of smoky cities; they are, indeed the "sights and sounds that give delight, but hurt not."







M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN. SOUTHS.					MOON. SOUTHS.					DURATION OF MOONLIGHT.					HIGH WATER AT LONDON BRIDGE.				Day of the Year.
			Rises.	After 12 o'clock.	Height above horizon.	Sets.	Rises. Afternoon.	After- noon.	Height above horizon.	Sets. Morning.	Before Sunrise. O'Clock. 1h. 2h. 3h.	Moon's Age.	After Sunset. O'Clock. 9h. 10h. 11h.	Morning.	Afternoon							
1	S	4TH S. aft. TRIN.	3 49	3 27	6 13	8 17	4 26	9 15	23 1/4	1 29		12		11	5	11	37	182				
2	M	Visit. of V. M.	3 49	3 39	6 11 1/2	8 17	5 24	10 1	20 1/4	1 58		13		No Tide.	0	8	183					
3	Tu	Dog Days begin	3 50	3 50	6 11 1/2	8 16	6 20	10 48	19	2 34		14		0	32	0	55	184				
4	W	Trans. St. Martin	3 51	4 0	6 11 1/2	8 16	7 12	11 36	18 1/2	3 14		15		1	15	1	40	185				
5	Th	Arcturus souths 7h. 14m. P.M. [Camb. Term ends]	3 52	4 11	6 11 1/4	8 16	7 58	Morning	19	4 0		16		1	55	2	15	186				
6	F	Old Midsum. D.	3 53	4 21	6 11	8 15	8 39	0 24	20 1/4	4 52		17		2	35	2	55	187				
7	S	Ox. Term ends	3 54	4 31	6 11	8 15	9 14	1 12	22 1/2	5 49		18		3	10	3	30	188				
8	S	5TH S. aft. TRIN.	3 55	4 40	6 11	8 14	9 46	1 59	25 1/2	6 50		19		3	45	4	0	199				
9	M	Bourbons r. 1815	3 56	4 49	6 11	8 14	10 13	2 47	29	7 56		20		4	20	4	35	190				
10	Tu	Epsilon Bootis souths 7h. 24m. P.M.	3 57	4 58	6 10 3/4	8 13	10 39	3 33	33	9 2		21		4	55	5	15	191				
11	W	Old St. Peter	3 58	5 6	6 10 3/4	8 13	11 4	4 20	37 1/2	10 12		22		5	35	5	55	192				
12	Th	Beta Liræ souths 7h. 45m. P.M.	3 59	5 14	6 10 3/4	8 12	11 29	5 7	42	11 22		23		6	15	6	40	193				
13	F	Alpha Serpentis souths 8h. 12m. P.M.	4 0	5 22	6 10 1/4	8 11	11 56	5 56	46 1/4	Afternoon		24		7	5	7	30	194				
14	S	[St. Swithin]	4 1	5 28	6 10 1/4	8 10	Morning	6 46	50 1/4	1 50		25		7	57	8	27	195				
15	S	6TH S. aft. TRIN.	4 2	5 35	6 10	8 9	0 27	7 40	53 1/4	3 5		26		9	5	9	37	196				
16	M	The Hegira, or flight of Mahomet, A.D. 622	4 3	5 41	6 10	8 8	1 4	8 36	56 1/4	4 21		27		10	11	10	47	197				
17	Tu	[born, 1822]	4 4	5 46	5 59 1/2	8 7	1 47	9 36	56 3/4	5 32		28		11	22	11	55	198				
18	W		4 5	5 51	5 59 1/2	8 6	2 40	10 38	56 1/4	6 37		29		No Tide.	0	30	199					
19	Th	Prs. Aug. Camb.	4 6	5 56	5 59 1/2	8 5	3 43	11 40	—	7 31		30		0	57	1	25	200				
20	F	St. Margaret	4 8	6 0	5 59 1/2	8 4	4 43	Afternoon	54 1/4	8 16		1		1	52	2	20	201				
21	S	Antares souths 8h. 21m. P.M.	4 9	6 3	5 59	8 3	6 9	1 38	51	8 55		2		2	45	3	10	202				
22	S	7TH S. aft. TRIN.	4 10	6 6	5 58 3/4	8 2	7 24	2 32	47	9 26		3		3	35	3	55	203				
23	M	[Mary Magdal.]	4 11	6 8	5 58 3/4	8 0	8 39	3 23	42 3/4	9 53		4		4	19	4	40	204				
24	Tu	Beta Lyre souths 10h. 34m. P.M.	4 12	6 10	5 58 3/4	7 58	9 52	4 11	38 1/2	10 20		5		5	0	5	25	205				
25	W	St. James	4 14	6 11	5 58 1/4	7 56	10 51	5 47	34	10 42		6		5	47	6	10	206				
26	Th	St. Anne	4 15	6 11	5 58	7 54	Afternoon	5 42	30	11 6		7		6	30	6	55	207				
27	F	Revolution in Pa- ris, 1830, lasted three days.	4 17	6 11	5 57 1/2	7 53	1 12	6 26	26 1/2	11 32		8		7	15	7	40	208				
28	S		4 19	6 10	5 57 1/2	7 51	2 16	7 12	23 1/2	Morning		9		8	5	8	35	209				
29	S	8TH S. aft. TRIN.	4 21	6 9	5 57 1/4	7 50	3 15	7 57	21	0 1		10		9	10	9	45	210				
30	M	Alpha Aquile souths 11h 9m. P.M.	4 23	6 7	5 57	7 49	4 13	8 44	19 1/2	0 34		11		10	18	10	55	211				
31	Tu	Alpha Lyre souths 9h. 54m. P.M.	4 24	6 4	5 56 3/4	7 47	5 6	9 31	18 1/2	1 12		12		11	25	At Mid- night		212				



## THE ILLUSTRATED LONDON ALMANACK FOR 1849.

## JULY.

THE SUN is in the sign Cancer till the 23rd, on which day, at 0h. 59m. A.M., he enters that of Leo (the Lion). On the 1st he is 96,590,000 miles from the Earth, being at his greatest distance on this day, at 4h. A.M., during the year. On the 1st he rises at 3 $\frac{1}{2}$  N. of N.E. by N.; on the 18th, at the N.E. by N.; and on the 31st, at 4 $\frac{1}{2}$  S. of N.E. by N. He sets, on the same days, at 3 $\frac{1}{2}$  N. of N.W. by N.; at the N.W. by N.; and on the last day at 4 $\frac{1}{2}$  S. of N.W. by N. points of the horizon. His time of southing, in common clock time, and his height in degrees at the same time, are given for every day on the opposite page.

The Moon is in the constellation Libra on the 1st; in Ophiuchus, on the 2nd, 3rd, and 4th till noon; moving on the boundaries of Aquila and Sagittarius, till the 6th; in Capricornus, on the 7th; in Aquarius, from the 8th to the 10th; in Pisces and Cetus alternately, till the 15th; in Taurus, on the 16th and 17th; in Gemini, on the 18th and 19th; in Cancer, on the 20th; in Leo, from the 21st to the 23rd; in Virgo, till the 26th; in Libra, on the 27th and 28th; and in Ophiuchus, till the end of the month.

She rises before the Sun sets, till the 5th; during the night, till the 19th; and after the Sun rises, till the 20th. She sets before the Sun rises, till the 4th; during the day, till the 19th; and after the Sun sets, from the 20th. For the actual times, see the opposite page.

She is on the Equator on the 12th and on the 24th. Her time of southing, in common clock time, and her height in degrees at the same time, are given for every day on the opposite page.

She is near Saturn on the 12th; Uranus, on the 13th; Mars, on the 14th; Venus, on the 16th; Mercury, on the 18th; and Jupiter, on the 21st. She is full on the 5th, and new on the 19th; but without an Eclipse at both times.

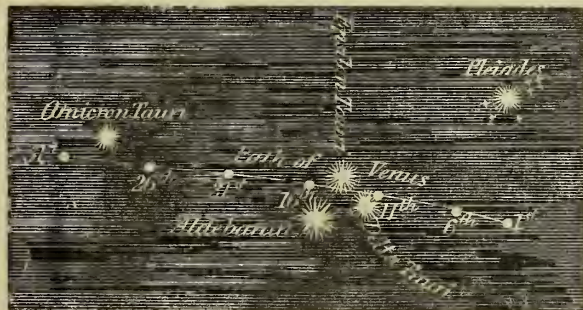
MERCURY is in the constellation of Gemini throughout the month.

He is a morning star from the 5th; and rises on the 5th, at 5m.; on the 8th, at 25m.; on the 14th, at 1h. 1m.; on the 20th, at 1h. 25m.; from the 26th to the 29th, at 1h. 34m.; on the 30th, at 1h. 33m., before the sun rises. The period of time from the 14th to the end of the month is favourable for observing this planet, before sunrise. He rises at 7 $\frac{1}{2}$  N. of E.N.E., on the 1st; at N.E. by N. on the 22nd; and 1 $\frac{1}{2}$  N. of N.E. by N. on the last day. He is moving westward among the stars till the 9th; is stationary among them on the 10th and 11th; and is moving eastward from the 12th to the 31st. He is near the Moon on the 18th; and at his greatest west elongation on the 21st.

VENUS is in the constellation Taurus throughout the month.

She is a morning star; and rises on the 1st, at 1h. 33m. A.M.; and on the last day, at 0h. 59m. A.M., at 2 $\frac{1}{2}$  N. of E.N.E. on the 1st; and at 1 $\frac{1}{2}$  S. of N.E. by N. points of the horizon on the 31st. She is moving eastward among the stars throughout the month; is near Aldebaran on the 15th; and the Moon on the 16th. On the 22nd, she is at her greatest W. elongation. Her places in the heavens, relative to the principal fixed stars near her, are shown in the annexed diagram.

PATH OF VENUS, WITH RESPECT TO THE FIXED STARS, DURING THE MONTH OF JULY, 1849.



Scale, 12 degrees to one inch.

MARS is in the constellation Aries till the 27th; and in Taurus, from the 28th.

He rises on the 1st at 26 minutes after midnight; on the 11th, at midnight; and on the 31st, at 11h. 13m. P.M. He is visible throughout the night, after these times. He rises on the 1st at 6 $\frac{1}{2}$  N. of E. by N.; on the 14th, at E.N.E.; and on the 31st, at 5 $\frac{1}{2}$  N. of E.N.E. His times of southing are given below; and he sets at about 2 $\frac{1}{2}$ h. P.M. He is moving eastward among the stars; and is near the Moon on the 14th.

JUPITER is in the constellation Leo throughout the month.

He is an evening star; and sets on the 1st, at 10h. 23m. P.M., at 1 $\frac{1}{2}$  N. of W.N.W.; on the 19th, at 9h. 19m. P.M., at W.N.W.; and on the last day, at 8h. 37m. P.M., at 1 $\frac{1}{2}$  S. of W.N.W. He is moving eastward among the stars; and is near the Moon on the 21st.

SATURN is in the constellation Cetus throughout the month.

He rises on the 1st, at 11h. 46m. P.M.; on the 15th, at 10h. 42m. P.M.; and on the 31st, at 9h. 49m. P.M. After these times he is visible throughout the night. He rises on every day, a little to the N. of the east part of the horizon, is nearly stationary among the stars during the month; and is near the Moon on the 12th. His place in the heavens, with respect to the principal fixed stars, is shown in the annexed diagram; during the remainder of the year, his change of place is small, and he therefore occupies nearly the same place among the fixed stars to the end of the year.

RELATIVE POSITION OF SATURN TO NEIGHBOURING STARS, DURING THE MONTH OF JULY, 1849.



Scale, 12 degrees to one inch.

URANUS rises about 4 $\frac{1}{2}$  N. of E. by N. on the 1st, at 0h. 7m. A.M.; and on the last day at 10h. 10m. P.M. He is nearly stationary among the stars; and is near the Moon on the 13th.

## ON PLANETARY PHENOMENA.

(Continued from June.)

change of height may escape notice for a few evenings; but if continued for a month, the observer cannot fail to be convinced of the fact. The causes which operate to make the stars and the planets rise earlier every evening, operate in a similar way to make those situated in the west set earlier every succeeding evening. Those objects, therefore, which we have been accustomed to see occupy the western portion of the sky after sunset, are no longer to be found there, but their places are occupied by other objects; and thus, by the Earth moving round the Sun, all the stars successively become visible to us. Had the Earth moved about a fixed axis passing through its centre, and not in an orbit round the Sun, the aspect of the heavens, at the same time of night, would have been always the same.

In the Almanack for 1847 are given the times at which the principal stars pass the meridian before midnight in most of the months. The times that the same stars in the same months in this year pass the meridian, are one minute earlier than the times given in the Almanack for 1847; and, therefore, these times, by the application subtractively of one minute, apply during this year. The stars thus preserving their places from year to year without change, present an admirable means of showing the absolute changes in the places of the Moon and planets from period to period. These changes are perpetually progressing, and all of them are noticed from month to month, as far as is necessary to enable every reader to find any planet in the heavens, and to follow its course among the stars from year to year. Previously to the publication of this Almanack, few persons indeed had seen the Planet Mercury with the unassisted eye, which owing to its proximity to the Sun, is the most difficult to see, of all the old planets. At times, however, he may be readily seen, either in the evening or morning twilight, according as he is at his greatest eastern or western elongation. These times are carefully noted, and

(Continued in August.)

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					JUPITER'S SATELLITES.		OCCULTATIONS OF STARS BY THE MOON.			
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.			Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
	Morning.	Morning.	Morning.	Afternoon	Morning.						
1	H. M.	H. M.	H. M.	H. M.	H. M.			f Piscium	6	D. H. M.	Bright
6	11 54	9 0	7 26	2 59	5 55					13 0 9 A.M.	
11	11 24	8 56	7 20	2 43	5 36					13 0 51 A.M.	
16	11 0	8 53	7 14	2 27	5 17						
21	10 45	8 52	7 8	2 11	4 58						
26	10 40	8 51	7 1	1 56	4 38			A star in Ophiuchus	5	29 11 30 P.M.	Dark
31	10 45	8 52	6 55	1 40	4 18					At the time of re-ap- pearance the star below horizon.	
	10 59	8 53	6 49	1 24	3 58						

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

	Days of the Month.	Time.
FULL MOON	.. .. 5D.	1h. 29m. P.M.
LAST QUARTER	.. .. 13	7 8 A.M.
NEW MOON	.. .. 19	9 15 P.M.
FIRST QUARTER	.. .. 27	0 35 A.M.
APOGEE	.. .. 3	8 0 A.M.
PERIGEE	.. .. 18	2 0 P.M.
APOGEE	.. .. 30	7 0 P.M.

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.
1	6h. 32m	18° 33'	3h. 37m	15° 36'	2h. 4m	10° 56'	9h. 37m	15° 9'	0h. 32m	0° 54'	1h. 37m	9° 29'
6	6 21	18 34	3 53	16 24	2 17	12 9	9 41	14 51	0 33	0 56	1 37	9 31
11	6 17	19 2	4 10	17 15	2 31	13 18	9 45	14 32	0 33	0 57	1 38	9 33
16	6 22	19 53	4 28	18 6	2 44	14 24	9 48	14 12	0 33	0 57	1 38	9 35
21	6 37	20 51	4 48	18 54	2 58	15 26	9 52	13 51	0 33	0 56	1 38	9 36
26	7 1	21 36	5 8	19 36	3 11	16 24	9 56	13 30	0 33	0 53	1 38	9 36



# JULY.—SHEEP-SHEARING FEAST.



Since finish'd our shearing, in feasting we're met,  
And our master before us this plenty has set;  
While gaily and glad some our holiday keep,  
Let us give the praise due to the fleece and the sheep — *Old Song.*

SHEEP-SHEARING Feast is one amongst the oldest of our English holidays; and appears to have ranked with the earliest celebrations of the olden times. It is frequently alluded to in the Bible, where we meet with the names of those who celebrated it; and we even find enumerated the many good things which were consumed at the feast. It is pleasant to dwell upon such ancient customs, to recal scenes which were in existence thousands of years ago, long before the shepherds assembled in the fields of Bethlehem, or the "star had arisen in the east" that illuminated a dark and benighted world. It was so natural, when mankind had gathered in the wool which was to clothe them, and the corn which was their principal food, to return thanks to the Giver of all good, and to be joyful and merry on such occasions. It is a pleasure to know, that in summer time there was the same bleating of sheep and lambs beside the brooks in the pleasant valleys of Palestine, as there is now in our own green English pastures; and that, ages ago, the shepherds washed their flocks in the hallowed waters of Jordan.

There is nothing more lively than Sheep-Shearing, where all the idlers in the village are assembled; where the crowded pens are filled with bleating sheep; while the shearers are bending as earnestly over their work as if it were a matter of life and death, though the lookers-on only consider it as a pleasant

amusement. There is, also, something pleasing in the sound, as they every now and then pause to whet or sharpen their shears—in the very attitude of the clipped sheep as they turn away, as if they scarcely knew themselves, or their companions, for they all seem lost together; so strange do they appear in their ridgy jackets; for wherever the edge of the shears has clipped there is a mark which goes round and round, as if the sheep were bandaged in fine wool. Then there is something pleasing in the scenery amid which this labour takes place, in the large old barn in the background with its opening door, or the farm-yard surrounded with sticks, sheds, and out-houses, and carts, painted blue or red, on the shafts of which the fowls are perched. But the most cheering sight of all to the "clippers," for such are the sheep-shearers called, is the preparation under the oak before the farm-house door, or within the barn itself, for the feast; for they not only look forward to a merry time, but there is the consciousness that their labour is brought to a close; and when the last sheep is sheared, then comes the loud huzza! for no end of good things are inviting them.

The great copper is filled with furmity, made of boiled wheat, which, when cold, cuts like jelly; currants, raisins, spices of every kind; sugar shot in in pounds, which, when boiled enough, is emptied out into basins and pans, and



cooled with new milk. Round this delicious mess assemble the young—three or four, with huge wooden spoons, eating out of one pan-chen, or large earthenware vessel, about two feet wide. Sometimes, they quarrel, like pigs around a trough; one has thrown a spoonful of furmity into the others face; others have set off, and gone into the orchard to swing. The great kitchen is a very Babel of sounds.

In my "Pictures of Country Life," I have drawn the following picture of a Sheep-Shearing Feast, which is sometimes held in the barn: the immense door is turned into a table, and almost bends beneath its load of provisions. We talk of roast beef; taste what is set before them! Smell of that chine: what a nosegay! It is stuffed with all kinds of savoury herbs; it tastes like duck, goose, pork, veal, as if all good things were rolled into it, and made one. It would make a sick man well only to smell of it. What slices! What appetites! What horns of brown ale they empty! A waiter in a London eating-house would run away horror-stricken, and proclaim a coming famine throughout the land. They eat their peas by spoonfuls: a new potato vanishes at every mouthful; dishes are full and emptied ere you can turn your head. That was a whole ham ten minutes ago, now you behold only the bone. Who ever before saw such enormous plum-puddings? Surely they have eaten enough. Why, that broad-shouldered sun-burnt fellow has clipped a solid pound upon his plate—it is burning hot: look how he holds that large lump, and blows it between his teeth; the tears fairly start into his eyes. Where are those legs of mutton, the chins, and sirloins, and aitch-bones of beef? Gone, for ever gone! And now come the custards, and cheesecakes, and tarts. The men will assuredly burst. See, they loosen their neckerchiefs and their waistcoats, as if they were going to begin again in downright earnest. Every man seems as if he had brought the appetite of three, as if he were resolved to do his utmost; for "eat, drink, and spare not," is the order of the day; there is no one by to begrudge them.

The following beautiful song, which we found in a collection published nearly a century and a half ago, has, no doubt, often been carolled by many a voice, long since silent, at the old English Sheep-Shearing Feasts. We regret that we are unable to discover the Author's name, for every line is stamped with the impress of true poetry:—

Tarry wool, tarry wool,  
Tarry wool is ill to spin!  
Card it well, card it well,  
Card it well ere ye begin.  
When 'tis carded, rolled, and spun,  
Then the work is almost done;  
But when woven, drest, and clean,  
It may be clothing for a queen.

Sing, my bonny barmless sheep,  
That feed upon the mountains steep,  
Bleating sweetly as ye go  
Through the winter's frost and snow.  
Hart and hind, and fallow deer,  
Are not half so useful here,  
From klegs, to him the plough does pull,  
Are all obliged to tarry wool.

Up, ye shepherds! dance and skip,  
For the lulls and valleys trip;  
Of tarry wool sing ye the praise,  
Sing the flocks that do it raise:

Harmless croatures without blame,  
That clothe the back, and feed the home;  
Keep us warm, and healthy full;  
Let us love the tarry wool.

How happy is a shepherd's life!  
Far from courts, and free from strife.  
While the ewes do bleat and "bae,"  
And the lambskins answer "mae,"  
No such music to his ear.  
Of thief and fox has he no fear:  
Shepherd will watch—dog rend and pull,  
And well defend the tarry wool.

He lives content and envies none,  
No, not a monarch on his throne;  
Though be the royal sceptre ways,  
He hath not sweeter holidays.  
Who'd be a king, can any tell,  
When a shepherd sings so well?  
Sings so well, and pays in full,  
With honest heart and tarry wool.

"It is a poor heart that never rejoices;" and when we think of the many bleak bitter nights at the close of February and the beginning of March which the shepherds have passed in the open fields, and on the windy hills, in the "lambing season," it gives one pleasure to see them still so happy. Many a lamb would have been lost, but for the care they took of them; for there they waited night after night, amid sleet and storm, in their little temporary huts, ready to rush out in a moment, and pick up and shelter the young lambs, which would otherwise, perchance, have perished in the cold. Proud were they, when finer days came, and they looked on and saw their new-born flocks racing in the meadows.

Now let us peep into that pretty parlour. There sit the farmer's daughters at tea. What piles of cakes, honey, butter, eggs, ham, cold fowl! What smiling faces! and some of them are really beautiful pictures of rosy health. Now they are singing in the kitchen; now the fiddle is heard in the barn; there is giggling and laughter in the orchard; whispings somewhere in the garden; children playing at hide-and-seek in the stack-yard. See where those dark-eyed seducers, the gipsies, have congregated outside the farm-yard; somehow or another they have come in for their share of the feast: by and by, they will become bolder; or, bearing a child, will venture into the barn; another will follow; and as the ale-horn circulates, it will, long before midnight, be "Hail fellow! well met!"

Then come the morris dancers, "Robin Hood," and "Maid Marian," with such poetry as is not to be found in the old ballads. Well, there is plenty for all; the ale for Sheep-Shearing Feast was brewed many a long month ago; and there are still half a dozen barrels untapped in the cellar, all of which were brewed from an extra allowance of malt, for the great occasion of "Sheep-Shearing."

But where is the old farmer? He bade his men fall to, and welcome; and we have not seen him since. No, he is in the large, old-fashioned summer-house at the bottom of his garden, with the butcher, and the miller, and the maltster, and the doctor, and the landlord from the "Black Bull;" and they have drawn the corks of a few bottles of choice port, and are enjoying themselves in their own way. The young lawyer has brought his fiddle, for he is a gentleman fiddler; and the young ladies in the parlour will come soon, and dance on the lawn, for even there the line of distinction is drawn. The wealthy farmer's daughter may condescend just to dance a turn or two in the barn; and when they have gone, the old one-eyed hired fiddler will strike up "Bob and Joan," just to show his contempt for such proud, stuck-up "thingumterrys," as he will call them; "with their waltzes, and quadrilles, and such like outlandish fal-the-rals, as their grandmothers would have been ashamed to have been seen in."

All who have wandered into the country, about the beginning of summer, must have heard the unusual bleating amongst sheep in the neighbourhood of rivers and water-courses; and if they have never beheld such a scene before, must, when they have reached the spot, have looked both with interest and pleasure at a sheep-washing. There stand three powerful sun-burnt fellows, up to the middle in water. A sheep is forced in by a man on the bank; it is seized by the first washer, who, laying fast hold of the fleece, souses the poor creature about, as if he would shake it to pieces; he then looses his hold, and the bleating animal, as he begins swimming towards the shore, is seized by the second washer, in whose hands he fares no better than he did whilst an unwilling prisoner to the first. He bleats more pitifully; and just as he is within a few feet of the shore, souse he goes over and over for the third time, and then he is at liberty. He reaches the bank, and there stands bleating, while the water flows from his heavy fleece. Others who have undergone the same fate bleat in reply; while the unwashed ones are not a bit behind-hand in their complainings, for a hundred sheep "baa" like one.

Then, what a roar of laughter comes ringing upon the air, at the sturdy shep-

herd boy, who, while thrusting and forcing along some obstinate sheep to the edge of the water, is carried in, headlong, with his woolly companion; and, by an unexpected plunge, both aresent head over ear together, and land alike with a kindred and sheepish look, for Jack is pressed from hand to hand, amid loud "guffaws," which are heard half a mile off.

Sometimes the village girls will come down to the sheep-washing, and then there flies round many a rough random shot of country wit: the girls trace strange likenesses amongst the sheep to some civil rival; and, in allusion to the number of lambs, "more is meant than meets the ear." The frailties of some fair Phyllis are shadowed forth; while Damon, although midway in water, burns up to his very ears. You find that Dianas are not the only nymphs who haunt the neighbourhood of these pastoral Arcadias.

We have before spoken of Sheep-Shearing as being an ancient festival, and in the Book of Samuel, we read of Nabul, a man in Maon, whose possessions were in Carmel, who had three thousand sheep and a thousand goats; "and he was shearing his sheep in Carmel. And David heard in the Wilderness that Nabul did shear his sheep. And when David's young men came, they said to Nabul, 'We come at a good time.' We read again, in the same book, of Absalom having sheep-shearers, and inviting all the King's sons to the feast; and David was afraid to let all his sons go, lest they should cause Absalom too great an expense; and further on we find that they made merry with wine. For in our own English poet Herrick, we have it recorded that on such occasions there was always plenty—that the table was strown with no niggard hand.

They should see first and chief  
Foundation of the feast—fat beef;  
With upper stories mutton, veal,  
And bacon, which makes full the meal:  
With several dishes standing by,  
As here a custard, there a pie,  
And here all-tempting furmity.

Summer now reigns in the full womanhood of her beauty. The roses of her lips now put in the rounded sweetness of their bloom; and the sun has stained her cheeks with the richest dyes of heaven. Her hair is wreathed with the last blossoms of her choicest flowers; and when these are faded, she will begin to look round for her place of rest, for the beautiful summer has attained her full beauty, and is already doomed to die. Slowly, slowly, you see the flowers and leaves falling, to make her death-bed; and soon the sweet songsters will take their departure, for they cannot stay to look, while one so beautiful is about to gather up her gaudy garments in "dying dignity," and stretch herself upon a grave of faded flowers, to die. And yet, once again, Time will meet Summer

At this same place,  
She'll look as lovely as of old.  
For there will spring another race  
Of flowers from out the upturned mould,  
That have been buried long ago.

This has ever been our favourite month for angling. Not that we ever stood high as disciples of the "gentle" craft; but rather loved to let our rods lie idly amongst the reeds and flowers; or to watch the float riding lazily upon the ripples, while we whispered to the silvery shiver which the willows were ever making; or, with half closed eyes, lay drowsed beneath the perfume that came floating from some neighbouring bean-field. What a music there was in the lapping of the little ripples, as they came, one after another, to warm themselves on the sunny shore, bowing the reeds that grew a little way out as they passed. Or to watch (as I have, in my poem entitled "Summer Morning," described a scene), when it rained,

The leaves "drop," "drop," and dot the silver stream—  
So quick each circle wore the first away.  
To see the tufted bullrush stand and dream,  
And to the ripple nod its head away;  
The water-flies with one another play.  
Bowing to every breeze that blows between,  
While purple dragon-flies their wings display;  
The restless swallow's arrowy flight is seen,  
Dimpling the sunny wave then lost amid the green.

Such sights were more pleasing to us than the capture of a thousand fish.







M	W	ANNIVERSARIES, OCCURRENCES, FESTIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT.			HIGH WATER		Day of the Year.
			Rises.	After 12 o'clock.	Height above horizon.	Sets.	Rises.	Afternoon.	Height above horizon.	Sets.	Before Sunrise.	After Sunset.	At London Bridges.	Morning.	Afternoon.	
D			h. m.	m. s.	Deg. N. S.	h. m.	u. m.	h. m.	Deg. N. S.	h. m.	O'Clock. 2h. 3h. 4h.	Moon's Age.	O'Clock. 8h. 9h. 10h.	h. m.	h. m.	
1	W	Lammas Day	4 25	6 1	56 $\frac{1}{4}$	7 46	5 55	10 19	18 $\frac{1}{2}$	1 54		13		No Tide.	0 25	213
2	Th	Antares souths 7h. 35m. P.M.	4 27	5 57	56 $\frac{1}{4}$	7 44	6 39	11 8	19	2 44		14		0 50	1 15	214
3	F	Alpha Herculis souths 8h. 18m. P.M.	4 28	5 52	56	7 43	7 16	11 56	21	3 40		15		1 35	1 55	215
4	S	[Oyst. seas. beg.	4 29	5 47	55 $\frac{3}{4}$	7 41	7 49	Morning.	25	4 42		16		2 14	2 30	216
5	S	9TH S. aft. TRIN.	4 31	5 42	55 $\frac{1}{2}$	7 40	8 17	0 44	27	5 46		17		2 50	3 10	217
6	M	M Transfiguration	4 33	5 35	55 $\frac{1}{4}$	7 38	8 43	1 31	31	6 53		18		3 25	3 40	218
7	Tu	Name of Jesus	4 35	5 28	55	7 36	9 10	2 18	36	8 2		19		4 0	4 15	219
8	W	Alpha Ophiuchi souths 8h. 18m. P.M.	4 36	5 21	54 $\frac{3}{4}$	7 34	9 34	3 6	40 $\frac{1}{2}$	9 13		20		4 32	4 50	220
9	Th	Acc L. Phil. 1830	4 38	5 13	54 $\frac{1}{4}$	7 32	10 1	3 53	45	10 23		21		5 10	5 30	221
10	F	St. Laurence	4 39	5 4	54	7 31	10 30	4 43	49	11 37		22		5 50	6 10	222
11	S	Dog Days end	4 41	4 55	53 $\frac{3}{4}$	7 29	11 2	5 34	52 $\frac{1}{2}$	Afternoon		23		6 35	7 0	223
12	S	10th S. aft. TRIN.	4 43	4 46	53 $\frac{1}{2}$	7 27	11 41	6 28	55	2 6		24		7 25	7 55	224
13	M	Qu. Adel. b. 1792	4 44	4 35	53 $\frac{1}{4}$	7 25	Morning.	7 25	56 $\frac{1}{2}$	3 16		25		8 30	9 10	225
14	Tu	Polaris souths 3h. 36m. A.M.	4 45	4 25	53	7 23	0 30	8 24	56	4 21		26		9 45	10 25	226
15	W	As. of B. V. Mary	4 46	4 13	52 $\frac{1}{2}$	7 21	1 27	9 24	55 $\frac{1}{2}$	5 19		27		11 10	11 45	227
16	Th	Alpha Lyrae souths 5h. 50m. P.M.	4 48	4 2	52 $\frac{1}{4}$	7 19	2 32	10 24	52 $\frac{1}{2}$	6 9		28		No Tide.	0 20	228
17	F	Duchess of Kent	4 49	3 49	52	7 17	3 43	11 22	—	6 49		29		0 50	1 20	229
18	S	[born 1786	4 51	3 37	51 $\frac{1}{2}$	7 15	4 59	Afternoon	49 $\frac{1}{4}$	7 23		30		1 45	2 10	230
19	S	11TH S. aft. TRIN	4 52	3 23	51 $\frac{1}{4}$	7 13	6 15	1 10	45	7 53		1		2 35	2 55	231
20	M	Beta Lyrae souths 5h. 50m. P.M.	4 54	3 10	51	7 11	7 28	2 0	40 $\frac{3}{4}$	8 20		2		3 20	3 40	232
21	Tu	Delta Aquilæ souths 9h. 17m. P.M.	4 55	2 55	50 $\frac{1}{2}$	7 9	8 39	2 48	36	8 45		3		3 55	4 15	233
22	W	Gamma Aquilæ souths 9h. 34m. P.M.	4 57	2 41	50 $\frac{1}{4}$	7 7	9 49	3 35	31 $\frac{1}{2}$	9 9		4		4 40	5 0	234
23	Th	Alpha Aquilæ souths 9h. 34m. P.M.	4 59	2 25	50	7 5	10 56	4 20	28	9 34		5		5 15	5 35	235
24	F	St. Bartholemew	5 0	2 10	49 $\frac{1}{2}$	7 3	Afternoon	5 6	24 $\frac{1}{2}$	10 2		6		5 55	6 15	236
25	S	[Pr. Alb. b. 1819	5 2	1 54	49 $\frac{1}{4}$	7 1	1 4	5 52	22 $\frac{1}{2}$	10 34		7		6 30	6 55	237
26	S	12TH S. aft. TRIN	5 3	1 37	49	6 59	2 3	6 38	20 $\frac{1}{4}$	11 10		8		7 15	7 40	238
27	M	Beta Aquilæ souths 9h. 24m. P.M.	5 5	1 20	48 $\frac{1}{2}$	6 57	2 58	7 25	18 $\frac{1}{2}$	11 51		9		8 10	8 50	239
28	Tu	St. Augustin	5 7	1 3	48 $\frac{1}{4}$	6 55	3 48	8 13	18 $\frac{1}{4}$	Morning.		10		9 25	10 5	240
29	W	St. John the Baptist beheaded	5 8	0 45	47 $\frac{3}{4}$	6 53	4 33	9 1	19 $\frac{1}{2}$	0 38		11		10 45	11 20	241
30	Th		5 10	0 27	47 $\frac{1}{2}$	6 51	5 14	9 50	20 $\frac{3}{4}$	1 31		12		11 55	No Tide.	242
31	F	Alpha Cygni souths 9h. 56m. P.M.	5 12	0 9	47 $\frac{1}{4}$	6 48	5 49	10 38	23 $\frac{1}{4}$	2 31		13		0 25	0 50	243



## AUGUST.

THE SUN is in the sign Leo till the 23rd, on which day, at 10h. 52m. A.M., he enters that of Virgo (the Virgins). On the 1st he is 96,386,000 miles from the Earth. On the 1st he rises 6° N. of E.N.E.; on the 15th, at the E.N.E.; and on the last day, at 2° N. of E. by N. He sets at 6° N. of W.N.W.; on the 1st; at the W.N.W., on the 15th; and at 2° N. of W. by N., on the 31st. His time of southing, in common clock time, and his height in degrees at the same time, are given for every day on the opposite page.

He is totally eclipsed on August 18th; this eclipse is visible in Australia and the Indian Ocean, but not here.

The Moon is moving on the boundaries of Aquila and Sagittarius on the 1st and 2nd; in Capricornus, on the 3rd; in Aquarius, on the 4th, 5th, and 6th; in Pisces and Cetus, alternately, till the 11th; in Taurus, on the 12th and 13th; in Gemini, on the 14th and 15th; in Cancer, on the 16th and 17th; in Leo, on the 18th and 19th; in Virgo, on the 20th, 21st, and 22nd; in Libra, on the 23rd and 24th; in Ophiuchus, on the 25th, 26th, and 27th; near Aquila and Sagittarius, on the 28th and 29th; in Capricornus, on the 30th; and in Aquarius, on the 31st.

She rises before the Sun sets from the 1st to the 3rd; after the Sun sets, and before he rises, or during the night, from the 4th to the 18th; and after he rises, or during the day, from the 19th. She sets before the Sun rises till the 3rd; during the day, from the 4th to the 17th; and after the Sun sets, from the 18th. For the actual times, see the opposite page.

She is on the Equator on the 8th and on the 21st. Her time of southing, in common clock time, and her height in degrees at the same time, are given for every day on the opposite page.

She is near Saturn on the 8th; Uranus, on the 9th; Mars, on the 12th; Venus, on the 13th; and Mercury and Jupiter, on the 18th.

She is full on the 4th, and new on the 18th; and an Eclipse of the Sun takes place on the latter day, but it is invisible in this country.

Mercury is in the constellation Gemini on the 1st; in that of Cancer, from the 2nd to the 11th; and in that of Leo, from the 12th.

He is a morning star till the 16th, and an evening star towards the end of the month. On the 1st he rises at 1h. 27m.; on the 5th, at 1h. 12m.; on the 10th, at 45m.; on the 15th, at 13m.; and on the 16th, at 8m. before the Sun rises. He sets on the 31st at 29m. after the Sun sets. He is favourably situated for observation before sunrise during the first few days of this month. He rises, on the 1st, at 1° N. of N.E. by N.; on the 5th, at the N.W. by N.; on the 18th, at W.N.W.; and on the 28th, at the W. by N. points of the horizon. He sets, on the 18th, at W.N.W.; and on the last day, at the W. by N. He is moving eastward among the stars during the month; he is near the Moon on the 18th, and Jupiter on the 20th; and is in superior conjunction with the Sun on the 18th.

Mars is in the constellation Taurus throughout the month.

He is visible throughout the greater part of the night; and rises, on the 1st, at 1h. 10m. P.M.; and on the last day, at 10h. 2m. P.M.; on the 1st, at 5° N. of E.N.E.; and on the 27th, at N.E. by N. His times of southing are given below; and he sets at about 2½h. P.M. He is moving eastward among the stars, and is near the Moon on the 12th.

This Planet is now becoming conspicuous; his places among the fixed stars, during this and the following month, are shown in the annexed diagram.

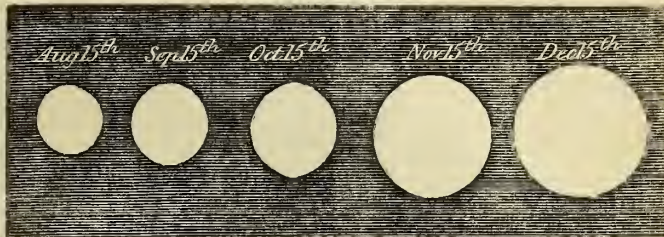
PATH OF MARS, DURING THE MONTHS OF AUGUST AND SEPTEMBER, 1849.



Scale, 12 degrees to one inch.

From this time to the end of the year his telescopic appearance undergoes considerable changes, and which are shown in the following diagram.

RELATIVE APPEARANCES OF MARS, IN THE MONTHS OF AUGUST TO DECEMBER, 1849.



Scale, 20 seconds of arc to one inch.

VENUS is in the constellation Taurus till the 2nd; in that of Orion, from the 3rd to the 8th; in that of Gemini, from the 9th to the 29th; and in Cancer, on the 30th and 31st.

She is a morning star throughout the month; and rises, on the 1st, at 0h. 59m. A.M.; on the 15th, at 1h. 2m. A.M.; and on the last day, at 1h. 22m. A.M., near the N.E. by N. point of the horizon all the month. She is moving eastward among the stars throughout the month, and is near the Moon on the 14th.

JUPITER is in the constellation Leo throughout the month. He is in an evening star; and sets at 8h. 33m. P.M., on the 1st, at 1° S. of W.N.W.; and at 6h. 46m. P.M., on the last day, at 6° N. of W. by N. He is moving eastward among the stars; and is near the Moon on the 18th, and Mercury on the 20th. He is in conjunction with the Sun on the 26th.

SATURN is in the constellation Cetus throughout the month. He is visible during the greater part of the night; and rises, on the 1st, at 9h. 45m. P.M.; on the 15th, at 5h. 50m. P.M.; and on the last day, at 7h. 47m. P.M., near the east part of the horizon. He is nearly stationary among the stars during the month, and is near the Moon on the 8th.

URANUS rises about 4° N. of E. by N., on the 1st, at 10h. 7m. P.M.; and on the last day, at 8h. 8m. P.M. He sets, on the 15th, at 4h. 4m. A.M., at an altitude of 48°. He is nearly stationary among the stars, and is near the Moon on the 9th.

## ON PLANETARY PHENOMENA.

(Continued from July.)

the places in the heavens occupied by the planet are also carefully indicated; thus enabling any person to find this planet without telescopic assistance.

The phenomena exhibited by the Planet Venus are always interesting; her recession from the Sun to a limited distance, remaining stationary there for a few days, then moving towards the Sun, passing him, and receding to a limited distance on the opposite side remaining stationary for a few days, and then returning, and so on, oscillating, as it were, backwards and forwards, the Sun being the apparent centre of her vibrations, like Mercury in this respect (see pages 27 and 37 of the Almanack for 1846). By comparing the motions of the Moon with those of the above planets, it will be seen to be widely different from them. The Moon never returns backward, or becomes stationary, but performs the entire circuit of the heavens, and overtakes the Sun, passes him, and again proceeds on her course as before.

The orbit of the planet Mars encloses that of the Earth; and he is in opposition once in two years only. During that year in which he is not in opposition, he is dull and small (see page 9 of the Almanack for 1846); but near the period of his opposition he becomes large, red, and splendid. When in opposition, he rises as the Sun sets; and the Earth and planet are in the same straight line, which line, if continued, would pass through the Sun. Now, as the orbit of Mars encloses that of the Earth, it will be seen that at this time Mars is nearer to the Earth than at any other time—nearer than when in conjunction by the entire diameter of the Earth's orbit, or 190 millions of miles. This remark applies to all the superior planets, or those whose orbits enclose that of the Earth. This will be evident by reference to the diagram in February, where it will be seen that when the Earth is at E 2, it is nearer to Jupiter by the whole diameter of her orbit, than when she occupies the position E 3; this difference of distance is so large in proportion to the whole distance of Mars from the Earth, as to cause a very great difference in his appearance at different times; but this difference of appearance is

(Continued on page 52).

Days of the Month.	TIMES OF THE PLANETS SOUTH'ING, OR PASSING THE MERIDIAN.					JUPITER'S SATELLITES.		OCCULTATIONS OF STARS BY THE MOON.			
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.			Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
	Morning.	Morning.	Morning.	Afternoon	Morning.						
	H. M.	H. M.	H. M.	H. M.	H. M.						
1	11 2	8 53	6 47	1 21	3 54			130 Tauri	6	D. H. M. { 14 0 52 A.M. 14 1 42 A.M.	Bright Dark
6	11 23	8 56	6 41	1 6	3 34						
11	11 45	8 58	6 34	0 50	3 14						
16	Aftern.	9 2	6 27	0 34	2 54						
21	0 24	9 6	6 20	0 19	2 33						
26	0 39	9 9	6 13	0 3	2 13						
31	0 51	9 14	6 5	Morn.	1 52	Are not visible, Jupiter being too near to the Sun.					

## TIMES OF CHANGES OF THE MOON.

And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Full Moon	..	4D. 3H. 52M. A.M.
Last Quarter	..	11 1 33 P.M.
New Moon	..	18 5 33 A.M.
First Quarter	..	25 4 56 P.M.
Perigee	..	15 3 0 P.M.
Apogee	..	27 11 0 A.M.

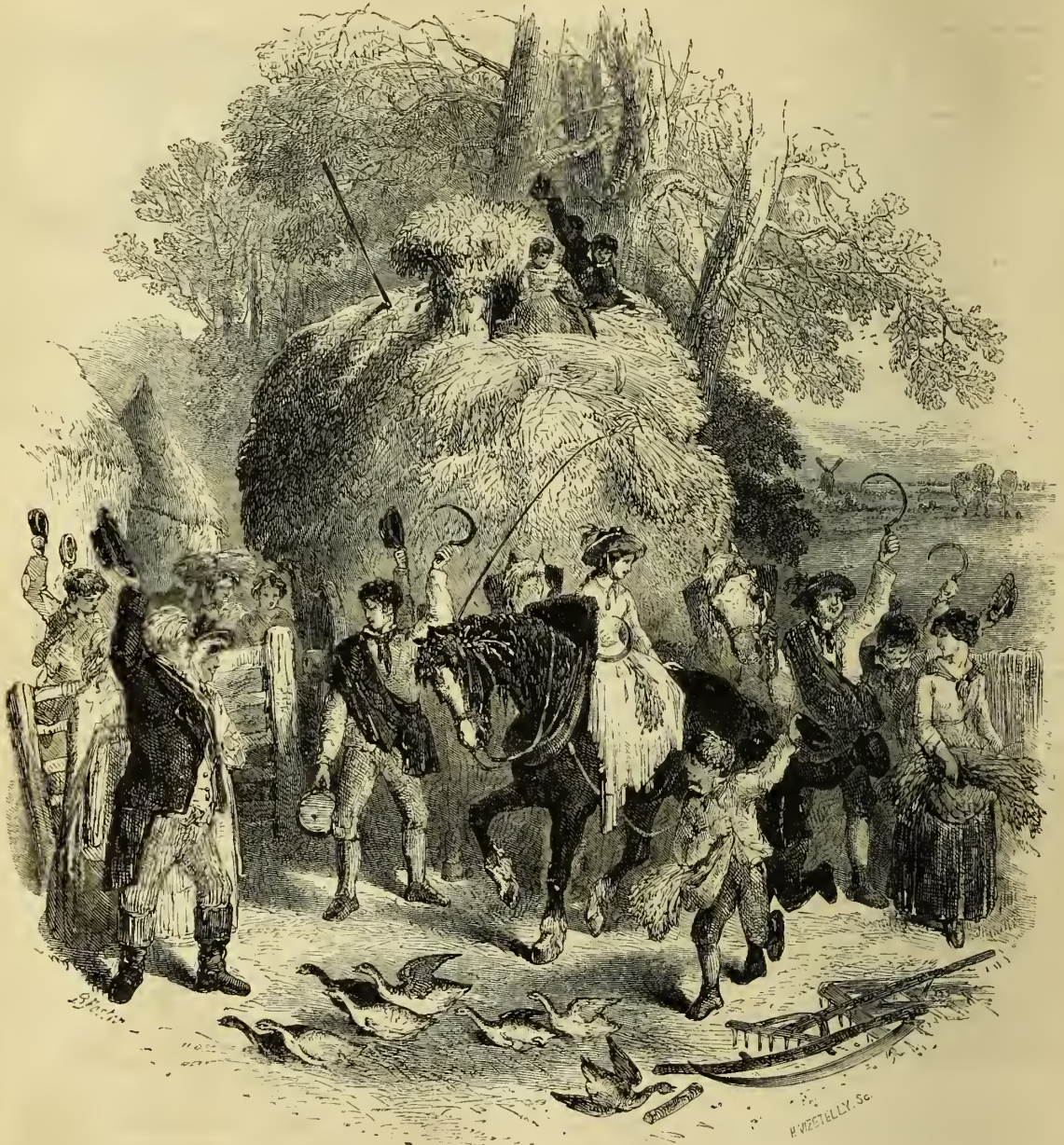
Days of the Month.

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.
1	7h. 42m	21° 37'	5h. 33m	20° 18'	3h. 27m	17° 29'	10h. 1m	13° 4'	0h. 33m	0° 50'	1h. 39m	9° 36'
6	8 22	20 33	5 55	20 43	3 40	18 18	10 5	12 42	0 32	0 45	1 38	9 36
11	9 4	18 24	6 18	20 57	3 53	19 4	10 9	12 20	0 32	0 40	1 38	9 35
16	9 45	15 25	6 41	21 0	4 6	19 45	10 14	11 57	0 31	0 34	1 38	9 34
21	10 23	11 54	7 4	20 50	4 19	20 22	10 18	11 34	0 30	0 28	1 38	9 32
26	10 57	8 7	7 28	20 27	4 31	20 56	10 22	11 11	0 29	0 20	1 38	9 30



# AUGUST.—HARVEST HOME.



About the cart hear how the rout  
Of rural younglings raise the shout ;  
Pressing before, some coming after,  
Those with a shout, and these with laughter ;  
Some bless the cart, some kiss the sheaves,  
Some prank them up with oaken leaves.—HERRICK.

NEITHER the harvest-supper nor the sheep-shearing-feast present such poetical features as the rural employments which terminate in their celebration, for both in the end are but reduced to the common and necessary acts of eating and drinking. In harvest-time we see an old and beautiful picture ; it was the same thousands of years ago ; it is familiar to us in the pages of Holy Writ. Abraham and the early patriarchs have looked upon such scenes, for it has ever been a time of rejoicing. What rich pictures, mellowed with the sunsets of ages, rise before the eye as we look upon the sun-browned reapers ! scenes not there presented, but such as have sprung from the events caused by good or bad harvests. We see, in Egypt, Joseph and his brethren ; Abraham and Isaac overlooking the harvest-field from their tents ; lands sold for measures of corn ; David's household busy in the fields ; Ruth "weeping amid the alien corn ;" Our Saviour gathering the ears of wheat on the Sabbath ; and a hundred other incidents which are connected with the sacred history of our religion.

But beautiful as may have been the harvest-fields of Palestine or Egypt, they could never have excelled in picturesque effect those which we have seen in our own England, hemmed in every way by rich and park-like scenery. Here vast

breezy uplands, that come sweeping down into broad pasture-lands, all waving golden with early corn. Reapers and gleaners—men, women, and children—clothed in every variety of homely costume, standing, stooping, or sitting down beside the piled-up sheaves, or half-buried in some little hollow behind the standing corn. Little village urchins, whose bare hard legs are pierced all over with the sharp stubble, and who thrust straw and all into their small gleaner-bags, so that they may appear full against the given time of either luncheon or dinner, the only difference in the meal consisting in the name given to it, for the homely viands are the same. Nor are the actions of the reapers less interesting ; there is a peculiar art in making those straw bands in which the sheaves are bound, in twisting the heads of corn together so as not to shake out the grain, in placing them nicely upon the stubble, and, finally, in tying up the sheaf itself, and securing the stubble ends of the band, and giving to them all, when bound, a free and plump appearance. We see such scenes as hitherto before the eye Keats's splendid description of autumn, where he says :—

Sometimes whoever seeks abroad may find  
These sitting careless on a granary floor,



Thy hair soft-lifted by the winnowing wind;  
Or on a half-respectful sound asleep,  
Drowsed with the fume of poppies; while thy hook  
Sporos the next swathe, and all its twisted flowers;  
And sometimes, like a gleam, thou dost keep  
Steady thy laden head across a brook.

But the bringing home of the last load forms the subject of our present Sketch, such as we have witnessed, and has received all but life and motion from the hands of the artist. The farmer's daughter, an interesting girl, was selected for the Harvest Queen, and dressed out very becomingly for the occasion, her little round straw-hat wreathed with ears of corn and convolvuluses; she was seated sideways on the leader, a fine chestnut-coloured horse, whose head was decorated with bunches of corn-flowers and blue ribbons; the hat of the driver was also adorned with bows of the same hue, "true blue" being your rustic's favourite colour; every horse in the team was distinguished by similar ornaments. The last "stout" is, however, still standing in the field, the topmost head of which is buried beneath bunches of rich-coloured ribands and flowers; long streams of blue and yellow and crimson have been floating out from the top of that "shock" ever since morning, and now the whole row along the furrow has disappeared, excepting that. At last the waggon approaches it, the gleaners and reapers rend the air with their loud huzzas, as the "harvest-sheaf," the crown of the field, is held high on the long pitching-fork by the labourer; it is then received by the man on the top of the load, and then reared on end, the most conspicuous object, through its gaudy colours, in the whole landscape. A few lines from our "Book of Autumn" will close the scene:—"Onward comes the waggon—the last load reaches the village—at the end of which the worthy farmer lives, and every cottager rushes out with a hearty welcome to hail the procession as it passes. The little tailor uncrosses his legs, throws down his goose and sleeve-board, and with his hose ungartered and hanging about his heels, his spectacles thrust high up his forehead, raises his child-like voice, and brandishes his shears above his head, causing them to snap together at every shout, as he joins in the loud jubilee. The smoke-grimed blacksmith leans his naked and brawny arms across the half-door of his smithy, while his man John stands in the middle of the road swinging his heavy hammer in the air, and grinning from ear to ear with delight. The wheelwright leaves the tire half-driven in the smoking wheel; and, untying his painted and dirty apron, shakes it out with all his might, causing the chips, dirt, and shavings to fly in every direction, while his deep voice rings out like the peal of a trumpet. The lame shoemaker next appears, bearing in his hand one of the farmer's heavy top-boots, which he was repairing when the waggon came up. He seems almost as much delighted as if the whole load were his own; his wife and children have been allowed to glean ever since the first day the reapers put their sickle into the standing corn, and the poor fellow is grateful for such kindness. The deaf old grandmother, who seldom quits her creaking wicker-chair and spinning-wheel in the chimney-corner, comes out, with her withered hand raised to shade the sunshine from her furrowed face, and, followed by the old grey cat, she raises the tin trumpet to her ear, and drinks in the glad sounds which she has been accustomed to hear through fourscore bygone harvests; and all the long evening the deaf old woman will be happy and talkative, telling about the May-days, and sheep-shearing feasts, and harvest-homes she attended when young, what she wore, and with whom she danced; and before her dim eyes will pass in long array the scenes of sixty years, and she will again recall the features of many who are now no more.

Each in his narrow cell or over laid,  
The rude forefathers of the hamlet sleep.

Every one at all conversant with history has read the sufferings and privations which whole nations have endured in times of scarcity, and can well understand why in the olden time there was so much rejoicing over a plentiful harvest. The richest crop ever hangs upon a "slender thread;" the finest fields of corn that ever bowed in the breeze or glittered in the summer sunlight, a few days' rain may hacken and destroy, and render unfit for food. Man cannot protect his crop against the elements, until it is garnered. Although the broad seas are now open, and ships from every corner of the globe may pour foreign grain into every store-house in England, yet we shall be sorry to see the day when she puts her chief trust in such supplies. She is not yet prepared to turn her rich corn-fields into grounds for factories, nor to trust to other nations for her supplies of corn. England, from the very richness of its soil and beauty of its scenery, was ordained to be an agricultural country; and however far its great cities may in time extend, it must be the work of ages to blot out the farms, and homesteads, and green rural scenes which are still its greatest charms.

Our merchants and manufacturers struggle on for years in close rooms and crowded offices, in the hope of at last retiring into some little village with its orchard, garden, and green field, and there to end their days in peace and tranquillity. Such a wish has ever been foremost in the bosoms of our great poets, statesmen, and philosophers. It is a distinguishing feature in the character of an Englishman; and perhaps in no other nation in the world is there such a thirst for this green retirement and domestic peace.

Autumn is a busy time with many animals as well as with man. The squirrel and several kinds of mice store up provision against winter, for although they hibernate a great portion of that season, yet a mild, warm atmosphere often awakes them, when they have recourse to the larder, then turn round, and sleep again. Mr. Conch, in his "Animal Instinct," says, "Long before the period of hibernation, and while the degree of temperature, and the abundance of subsistence, occupation, and amusement, one would suppose, would postpone the anticipation of such a state, creatures ordinarily subject to it are found entering upon a series of labours which, to the eye of reason, are as clearly indications of prospective intention as the building of a nest for incubation, or the storing of food for a time of scarcity. In some parts of the Russian dominions, as early as the month of August, while summer is in its glory, and everything inviting to enjoyment of the present rather than care for the future, the rat-lare sets about collecting the herbs which are to form its winter bed, and spreads them out to dry in the sun. In September these dried vegetables are gathered into heaps, which are sometimes the fruits of the labours of a single individual, and at others the united efforts of a company. The hamster in the Alps, and, in our own country, the dormouse, the shrew, and, in a less degree, the hedgehog, have the same habits; in all their proceedings making a marked distinction between their ordinary summer residences, or the receptacles for their young, and those in which they are to pass the time of insensibility. After accomplishing these preparations, a long time is suffered to pass before these animals finally retire to their winter retreats, and then they wrap themselves up in the accumulated materials, with a care and skill that indicate how well they are aware of the danger of exposure. The dormouse and harvest-mouse (whose summer nests have been placed on elevated stalks of grass, or in the branches of a furze-bush) now wrap themselves up in a ball, so closely woven together as to admit of being rolled about without disturbing its slumbering inhabitant, and stow themselves away in some crevice or recess among the entangled roots of a tree, beneath the soil." Mr. Bell asserts that the hibernation of the hedgehog "is as complete as that of any animal inhabiting this country;" he further asserts

(and we know no higher authority) that it lays up no provision for winter. On the contrary, although the squirrel sleeps away a great portion of the cold season, it lays up ample stores—not all in one place, but concealing the different stores in the holes of several trees around its haunts. Autumn is, therefore, a busy time with this beautiful and clean little animal. The long-tailed field-mouse is a great hoarder of food for winter, which consists of nuts, acorns, corn, and a variety of seeds; and sometimes a pig will come smelling and rooting about, to discover the treasure, and devour it. The following, which we wrote some time ago, to amuse a juvenile class of readers, will not be out of place here; it is supposed to embody the feelings of a long-tailed field-mouse, who sits hiding himself in a dark corner while a great hungry hog is eating up all his stock of provisions. "I wish it may choke you," said the field-mouse, "that I do, you great grunting brute! There go all my nice acorns, a dozen or more at a mouthful. Twelve long journeys had I in a day to the foot of the old oak tree to bring home a dozen of those—such a hard day's work that I could scarcely sleep a wink at night after, so much did my poor jaws ache; for I was forced to bring home every one in my mouth; and now that monster is gobbling up the whole hoard. He devours what cost me the labour of a month in a minute or two! Whatever I shall live on in winter I don't know. There goes my corn, too, which I dragged home, by an ear at a time, all the way from the harvest field on the other side of the wood, and with which I was often forced to rest two or three times during my journey; and sometimes I was compelled to drop an ear, and fight some other field-mouse that had a longer tail than myself, who tried to take the ear away under the pretence of helping me home with it, when I knew well enough it was his own nest he intended carrying it to. I wish I were big enough to thrash that great, ugly, grunting brute; really it makes one feel savage to think that after so much fetching, and carrying, and striving from morning to night—packing all up so snugly together, and not leaving even a single grain littered about, that a great thief should come in this way, break into one's house, and eat up everything, rump and stump." Naturalists say, that, after such a disaster, the field-mouse will fight his way into another nest, and either oust the inhabitant, or fall in the attempt. Wilson has beautifully depicted the pleasure of wandering amongst the mountains at this season of the year. "The wanderer, or hunter," he says,

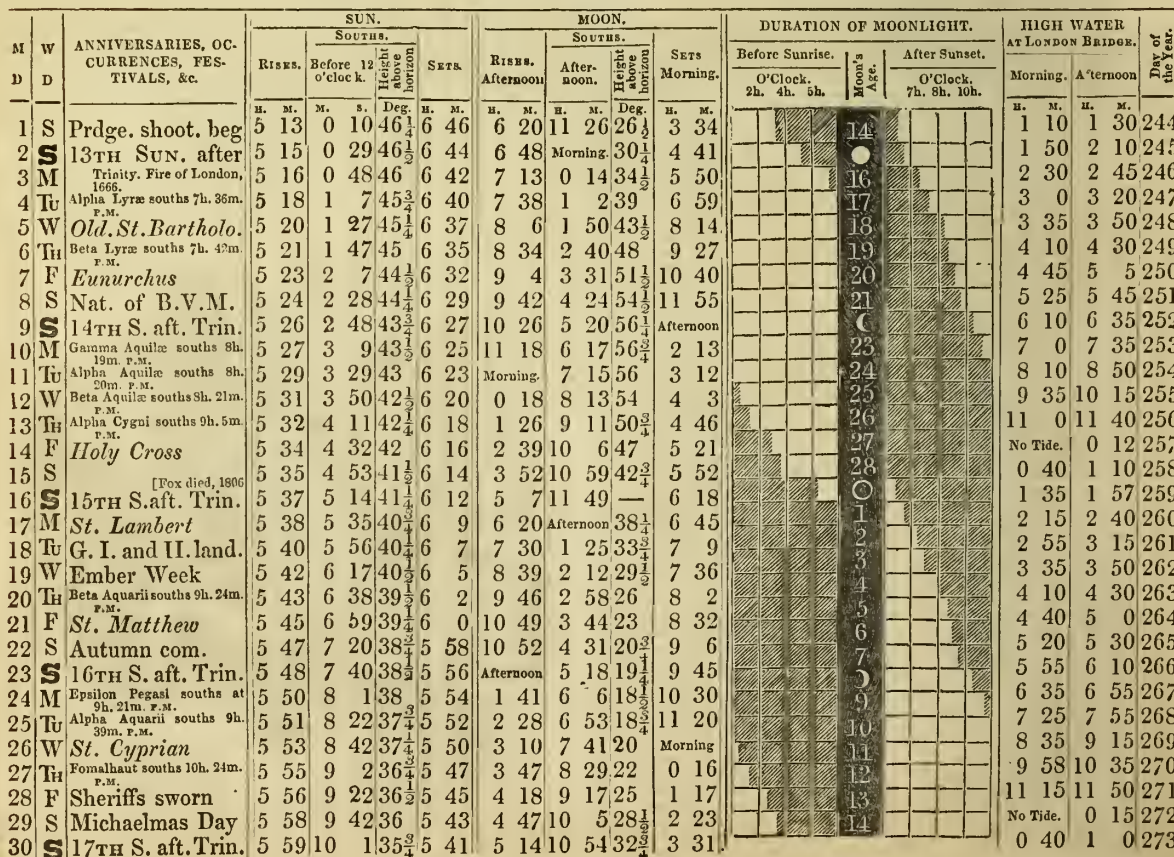
Now meets on the hill  
The new-waken'd daylight so bright and so still;  
And feels, as the clouds of the morning unroll,  
The silence, the splendour, amble his soul.  
'Tis his on the mountains to stalk like a ghost,  
Enshrouded in mists in which nature is lost,  
Till he lifts up his eyes, and flood, valley, and height,  
In one moment all swim in an ocean of light;  
While the sun, like a glorious banner unfurled,  
Seems to wave o'er a new, more magnificent world.

The scream of the eagle, the bounding of the mountain-deer, and the thunder of the cataract, complete the picture, and add their voices to the solitude. "Insects still continue to swarm," says Forster, "and to sport in the sun from flower to flower: it is very amusing to observe in the sunshine of an August morning their animation. The beautiful little blue butterfly is then all life and activity, flitting over the flowers and grass with remarkable vivacity. There seems to be a constant rivalry between this beauty and another no less elegant little bee, though of a different colour, frequenting the same station, attached to the same head of clover or of hare-bell; wherever they approach, mutual animosity seems to possess them; and, darting on each other with courageous rapidity, they buffet and contend until one is driven from the field, or to a considerable distance from his station, when the victor again returns to his post in triumph; and this contention is renewed so long as the brilliancy of the sun animates their courage." We have an admirable description of a butterfly that went out for a day's pleasure, written by the author of the immortal "Faery Queen," who tells us how it at last reached a garden, and there

Arriving, round about doth flie,  
From bed to bed, from oar to t'other border;  
And takes survey, with curious busy eye,  
Of every flower and herb there set in order;  
Now this, now that, he tasteth tenderly;  
Yet none of them he rudely doth disorder.









## SEPTEMBER.

THE SUN is in the sign Virgo till the 23rd, on which day, at 4h. 3m. A.M., he enters that of Libra (the Balance), and Autumn commences.

On the 1st he is 95,805,000 miles from the earth. On the 1st he rises at  $1^{\circ}$  N. of E. by N., and on the 23rd, at the E. He sets, on the 1st, at the W. by N.; and on the 23rd, at  $3^{\circ}$  S. of W. points of the horizon. His time of southing, in common clock time, and his height in degrees at the same time, are given for every day on the opposite page.

The MOON is in the constellation Aquarius on the 1st and 2nd; in Pisces and Cetus alternately, till the 7th; in Taurus, on the 8th, 9th, and 10th; in Gemini, on the 11th and 12th; in Cancer, on the 13th; in Leo, on the 14th and 15th; in Virgo, from the 16th to the 19th; in Libra, on the 20th and 21st; in Ophiuchus, on the 22nd and 23rd; near Aquila and Sagittarius, on the 24th, 25th, and 26th; in Capricornus, on the 27th; and in Aquarius, till the 30th, on which day she passes into Pisces.

She rises, on the 1st, at 53m. before the Sun sets; on the 2nd, at 4m. after he sets; from the 5th to the 16th, during the night; and from the 17th, during the day. She sets before the Sun rises, on the 1st and 2nd; during the day, from the 3rd to the 15th; and after the Sun sets, or during the night, from the 16th.

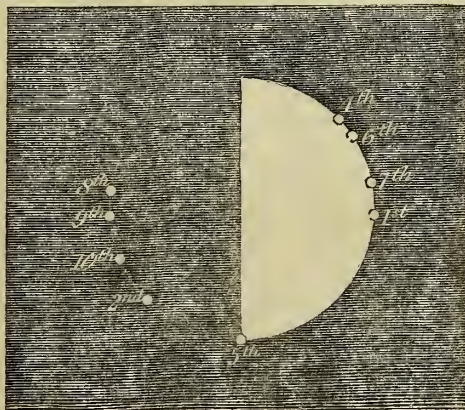
She is on the Equator on the 4th and on the 17th. Her time of southing, in common clock time, and her height in degrees at the same time, are given for every day on the opposite page.

She is near Saturn on the 4th; Uranus, on the 6th; Mars, on the 9th; Venus, on the 13th; Jupiter, on the 15th; and Mercury, on the 18th.

She is full on the 2nd, and new on the 16th; and an Eclipse of the Moon takes place at the former time, but invisible in this country.

During the night, which is common to the 8th and 9th, the Moon will occult several stars. The form of the illuminated part of the Moon at the times will be that of a half-moon nearly; and, consequently, one-half of the phenomena will take place at the bright limb, and the other at the dark limb. To facilitate the observation of these phenomena, the following diagram is annexed.

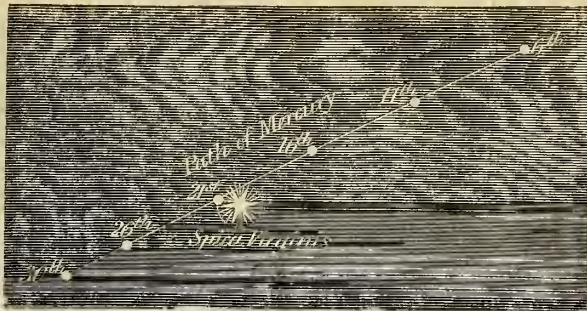
OCCULTATION OF STARS BY THE MOON, ON SEPTEMBER 8TH AND 9TH.



	will disappear at the place marked	D. H. M. 1 at 8 10 1 P.M.	{ and re-appear at the place marked	D. H. M. 2 at 8 10 47 P.M.
71 Tauri				
Theta 2 Tauri		3 at 8 11 10 "		5 at 8 11 37 "
80 Tauri		4 at 8 11 27 "		8 at 9 0 21 A.M.
81 Tauri		6 at 8 11 40 "		9 at 9 0 36 "
85 Tauri		7 at 9 0 13 A.M.		10 at 9 1 13 "

MERCURY is in the constellation Virgo throughout the month. He is an evening star; and sets, from the 1st to the 25th, at 28m. to 30m. after the Sun sets; he is, therefore, not very favourably situated for observation. He sets, on the 6th, at the W.; on the 16th, at the W. by S.; and on the 28th, at the W.S.W. points of the horizon. He is moving eastward among the stars during the month; is near the Moon on the 18th, and Spica Virginis on the 20th, as shewn in the annexed diagram. He is at his greatest elongation on the 30th.

PATH OF MERCURY, FROM THE 6TH OF SEPTEMBER, 1849, TO THE END OF THE MONTH.

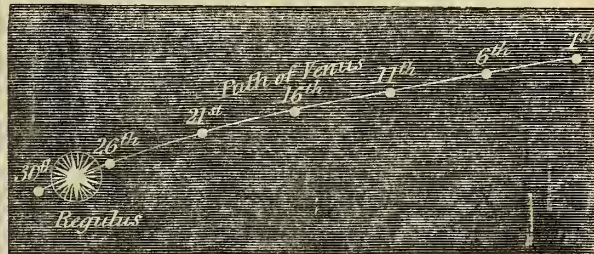


Scale, 12 degrees to one inch.

VENUS is in the constellation Cancer till the 16th and in that of Leo, from the 17th.

She is a morning star throughout the month; and rises, on the 1st, at 1h. 23m. A.M.; and on the last day, at 2h. 33m. A.M.; at  $9^{\circ}$  N. of E.N.E. on the 1st, and at the E.N.E. on the 24th. She is moving eastward among the stars throughout the month; is near the Moon on the 13th; is moving towards Regulus till the 26th; is near this Star on the 27th; and moves eastward from it after the 27th, as shewn in the annexed diagram.

PATH OF VENUS, IN THE MONTH OF SEPTEMBER, 1849.



Scale, 12 degrees to one inch.

MARS is in the constellation Taurus throughout the month.

He is visible throughout the greater part of the night; and rises, on the 1st, at 10h. 1m. P.M.; and on the last day, at 8h. 57m. P.M.; at  $2^{\circ}$  N. of N.E. by N. on the 1st, and at  $3^{\circ}$  N. of N.E. by N. on the 30th. His times of southing are given below; and he is, at those times,  $60^{\circ}$  above the horizon on the 1st day, and  $61^{\circ}$  on the last day. He sets about 1h. P.M. He is moving eastward among the stars, and is near the Moon on the 9th.

JUPITER is in the constellation Leo throughout the month. He is a morning star; but visible for a short time only. Rises at 4h. 46m. A.M. on the 1st, at  $6^{\circ}$  N. of E. by N.; and at 3h. 27m. A.M., on the last day, at  $2^{\circ}$  N. of E. by N. He is moving eastward among the stars; and is near the Moon on the 15th.

SATURN is in the constellation Cetus throughout the month. He is visible throughout the night; and rises, on every day, near the east point of the horizon; at 7h. 43m. P.M., on the 1st; at 6h. 46m. P.M., on the 15th; and at 5h. 42m. P.M., on the 30th; and passes the meridian at an altitude of  $39^{\circ}$  nearly on every day. He moves very slowly westward among the stars; and is near the Moon on the 4th, and is in opposition to the Sun on the 27th.

URANUS rises about  $4^{\circ}$  N. of E. by N.; on the 1st, at 8h. 4m. P.M.; and on the last day at 6h. 8m. P.M. He souths on the 15th, at 2h. A.M., at an altitude of  $48^{\circ}$ ; is moving slowly westward among the stars; and is near the Moon on the 6th.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					JUPITER'S SATELLITES.		OCCULTATIONS OF STARS BY THE MOON.			
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.			Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.
	Afternoon	Morning.	Morning.	Morning.	Morning.						
1	H. M. 0 53	H. M. 9 14	H. M. 6 4	H. M. 11 45	H. M. 1 48	Are not visible, Jupiter being too near to the Sun.		e <sup>o</sup> Aquarii	6	{ D. H. M. 1 6 35 P.M.	Dark
6	1 2	9 19	5 56	11 29	1 27			h <sup>1</sup> Aquarii	6	{ 1 7 23 P.M.	Bright
11	1 10	9 23	5 48	11 14	1 6					{ 2 8 43 P.M.	Bright
16	1 15	9 27	5 39	10 58	0 45					{ 2 9 53 P.M.	Bright
21	1 20	9 31	5 29	10 42	0 24					{ 3 10 28 P.M.	Bright
26	1 22	9 34	5 20	10 26	0 3					{ 3 11 12 P.M.	Dark
30	1 22	9 37	5 11	10 14	Aftern.			Nu Piscium	5	{ 5 10 32 P.M.	Bright
								f Tauri	5½	{ 5 11 11 P.M.	Dark
										{ 7 10 36 P.M.	Bright
										{ 7 11 31 P.M.	Dark

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apo- gee), or at her least distance (Perigee), from the Earth in each Lunation.		Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
			MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
			Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.
FULL MOON ..	2D. 5H. 18M. P.M.	1	11h.35m	3° 30'	7h.57m	19° 41'	4h.46m	21° 30'	10h.27m	10° 43'	0h.28m	0° 11'	1h.37m	9° 28
LAST QUARTER ..	9 6 55 P.M.	6	12 4	South	8 20	18 49	4 57	21 55	10 31	10 19	0 27	0 2	1 37	9 25
NEW MOON ..	15 4 2 P.M.	11	12 31	3 53	8 44	17 43	5 8	22 17	10 35	9 55	0 25	South.	1 36	9 21
FIRST QUARTER ..	24 11 24 A.M.	16	12 57	7 18	9 8	16 24	5 20	22 36	10 39	9 32	0 24	0 16	1 35	9 18
PERIGEE ..	11 10 0 A.M.	21	13 21	10 26	9 32	14 54	5 30	22 52	10 43	9 9	0 23	0 26	1 35	9 14
APOGEE ..	24 6 0 A.M.	26	13 43	13 12	9 55	13 13	5 40	23 5	10 47	8 45	0 21	0 35	1 34	9 10





They climb the pole, they run the races,  
They laugh to see the clown's grimaces;  
They leave behind all grief and care,  
And come light-hearted to the fair.

THERE is no place like a country air, wake, or statute, for getting a true insight into the characters of our English peasantry. There all reserve is laid aside, and Johnny and Molly do really enjoy themselves. A stranger might walk a hundred miles through the country, and never meet with a tithe of the character he will here pick up. Johnny invariably carries a stick in his hand, and, unless when talking, eating, or drinking, you find the knob thrust into his mouth. He wears high ankle-boots, laced very tight, and twines the lace three or four times round the ankle before he fastens it. He has on worsted hose, either blue or grey, and prefers having them ribbed. His breeches are either velvet, corduroy, or velvet, with pearl buttons on the knees, and a large bunch of drab ribbon, the ends of which he likes to see hang a good way down; if these are new, he generally tucks up his smock-frock to show them. His waistcoat is either plush, or a light kind of fustian, stamped all over with spots, rings, squares, or diamonds; if he can get a pattern with half-a-dozen colours in it, he likes it all the better; for if it is large and staring he knows Betty will consider it very neat. His neckerchief is generally either red or yellow; and he likes the ends to hang out a good way, and to feel the "real India" blowing about his face. He rubs up the down on his hat the wrong way to show how

thick it is of "beaver;" or he goes to see everything he wears stick out and be conspicuous.

Molly has generally a pair of pattens in one hand, and a cotton umbrella in the other. It matters not how fair or fine it may be—she bought them a Michaelmas or two before, and she argues that it is no use having such things unless she brings them out. If she has a sweetheart, he generally carries the pattens, and they are the cause of a little attention on both sides, for she sometimes says, "Let me carry 'em a hit, John, to wresten thy fises;" and he answers, "Noah, Molly, thankee thee; I wool howd 'em mysen." Her gown is the gaudiest she can purchase—the pattern either a great unnatural flower, or a trailing sea-weed, bordered with shells. She likes a red shawl, because it can be seen a long way off. As soon as they get into the fair, John either buys a pound of gingerbread or nuts, which he ties up in his handkerchief, leaving, however, one corner open, into which they can insert their hands; they crack and munch away while there is one left. Sometimes she says they're "mixed;" and he says "Hey?" They then saunter round and have a look at the shows and booths: he buys a knife with three or four blades, which is only fit to cut hntter. Molly purchases a few yards of red or blue ribbon. Sometimes they are



asked to buy a rattle for a baby, a doll, or a cradle; and, oh! how they do laugh! Molly is compelled to dig her elbow into her sweetheart's sides, and to say, "A done, John, wilt?" They then pay a penny each and have a look into a peep-show; when it is over Johnny wonders how they can get such long streets and big houses into such a little place, and Molly answers that "It's all magic." They next try their fortune in a penny lucky-bag, which they are assured contains "all prizes and no blanks." Johnny gets a cotton stay-lace, and Molly a row of pins. They purchase a song of the ballad singer, which is "all about love and such like;" they then get into a swing-boat, and are tossed up and down until they begin to feel very queer indeed, for they have eaten all the pa-ttry they could fancy, to say nothing of apples, nuts, oranges, pears, plums, and ginger-beer. They then adjourn to the public-house "to rest and settle down a bit." John meets a few acquaintances and tries to smoke a pipe; this, with a few glasses of ale, sets his tongue a-going. There is generally a recruiting party in the room, and as the ale gets into his noddle he talks about 'listing, at which Molly pulls his sleeve and says, "Duna be a fool, Johnny." He then tries a song; and, to make the tune and the metre harmonise, lays his accents as follows:—

Ass I was a walk'ning out one e-v'n-ning  
All down by a river si-de,  
And a gaz'ning all around me,  
A I-rish girl I spi-d-e.  
Its red and ro-sé was her lips,  
And so coal-black was her hair,  
And so cool-lé was the roses of growd  
This I-rish girl did wear.

He offers to thrash, plough, reap, or mow, with "any man if the room for a gowden guinea, and to put the money down." He gets his comrade who is drinking with him to feel his arm, and sometimes bares it to show the strength of his muscles. He tells how he once lifted a sack of corn into the waggon, without ever letting it rest upon him, only touching it with his hands. He would quarrel were it not for Molly getting up and popping her pattens between her lover and his opponent. Johnny gets half-mellow, is ready for anything, and will go out. Molly has picked up a female companion, whose sweetheart is as far gone as her own, and they follow arm-in-arm to see that nothing happens to their rustic lovers. Now John is either ready to climb the pole for a new hat, ride a donkey race, wheel a barrow blindfold, jump in a sack, or, as he says, "any manner of thing." There is soon seen a lot of sacks full of men, with only a head peeping out, and Johnny's about the most stupid of the whole lot, for he makes up the one of half-a-dozen who begin with jumping in the sacks. He gets in with great difficulty, has his arms thrust down, is tied up above the shoulders, and, when the word "Off!" is given, he is about the first that falls. Molly can hardly unloose him for laughing. "Better luck next time," says Johnny; and he enters the chase for the pig with its soaped tail, rubbing his hand well in the sand to make it rough before he starts. The pig is turned loose, and after him they start. Johnny is beginning to get a little sober by this time, and is, moreover, a capital runner. He seizes the pig by the tail, and is pulled headlong into a ditch, while the grunter escapes and "saves his bacon!" Nor do we ever remember seeing a pig fairly caught in this manner, for the law is, that it must only be captured by laying hold of the tail. Molly has now a job to rub the mud off Johnny, which she does by pulling up large handfuls of grass. While she is cleaning him, he stands very still, and looks very sheepish.

The hat still stands high on the top of the slender pole, ornamented with blue ribbons. The pole itself is rubbed with soft-soap and grease from top to bottom. Those who have attempted to climb are as greasy as butchers. In vain do they try to reach it; sand and sawdust are useless; even the miller's attempt was a failure, although he went up with his pockets filled with flour, and rubbed the pole with it every inch he gained. At length a sweep came, with his scot-bag twisted round him. They shook the pole, but still he continued to ascend, and all the shaking was in vain, for whenever you looked up you saw him looking down, showing his white eyes and white teeth. He trusted to his soot, feet, and hands, together with his long experience in difficult climbings, and seldom failed to bring down the prize. But the wheelbarrow race, blindfolded, was the best of all, for no one could see the mark he was running at. Some called "Left!" some "Right!" and, as each competitor had only the voices of the bystanders to guide him, away he went at full speed, obeying their directions as well as he could. Some foundered in a neighbouring pond, others in an opposite ditch. Johnny was the most fortunate of the lot, for he trusted to the clanking of Molly's patten-rings (a device of her own, before agreed upon), and won the new smock-frock, with all its garniture of sky-blue ribbons, the perquisites of his beloved Molly—for this stroke of policy was her own.

Nor was the donkey-race the least amusing part of a country fair; although we had bet ten to one on the favorite, there were the same odds against his moving at all—for it was ten to one if he would even start; if he did, we well knew that he could "win in a canter," as they say. Very annoying it was, after having risked all our pocket-money, to see the brute stick his head up against the palings and show his heels at every one who had courage enough to approach him. Yet such was too often the case, for he seemed not to care a straw for the new saddle which was exhibited at the winning-post in the distance. Perhaps if he did turn his eyes in that direction it was with some such thought as "I wish you may get it; catch me at that; were I to win every varlet in the village would want a ride, and I should be compelled to carry him;" and the very thought caused him to "lannch out" more viciously than ever.

Such is the picture of an English country fair, or wake, which a traveller may sometimes stumble upon as he comes unawares upon a little village standing half-buried amid the surrounding trees.

The woods are now beautiful; and never did the hand of an artist throw such rich colours upon the glowing canvass as may now be found in the variegated foliage of the trees. The leaves of the beech are dyed in the deepest orange that ever the eye saw gathered in golden clouds around a summer sunset; the dark green of the oak is in parts mellowed into a bronzy brown, blending beautifully with the faded yellow of the chesnut, and the deeper hues of the tall elm; while here and there the sable fir settles down into dark shadows between the alternate tints; and far as the eye can range along the wide outskirts of the forest it revels in the mingled hues of mountain, field, ocean, and sky, as if the flowered meadow, and the purple mountain, and the green billows of the sea, the hazing sunset, and the dark clouds of evening, had all rolled together their bright and sombre hues, and gathered about the death-bed of the beautiful summer. Over the bedgerow trails the rambling briony; and we see hunches of crimson and green berries, half-tempting us by their gushing ripeness to taste the poisonous juice which lies hurried beneath their deceptive beauty. The hips of the wild rose rest their rich scarlet upon the carved ebony of the luscious blackberry; while the deep hline of the sloe throws over all the rich bloomy velvet of its fruit, as it stands crowned with its ruddy tiara of hawthorn berries. On the ground are scattered thousands of polished acorns, their carved and clear cups lying empty amongst the fallen leaves until gathered by the village children, who deck their rustic stools with these primitive tea-services, and assemble around them with smiling faces and looks of eager enjoyment, while they sip their sugar and water out of these old fairy-famed drinking vessels. I have attempted to describe the

beauty and tranquillity of the calm evenings which we see at the close of summer and the commencement of autumn, in a little poem entitled

## THE EVENING HYMN.

Another day, with mute adieu,  
Has gone down yon untrodden sky,  
And still it looks as clear and blue  
As when it first was hung on high:  
The sinking sun, the darkening cloud,  
That drew the lightning in its rear,  
The thunder tramping deep and loud,  
Have left no footmark there.

The village bells, with silver chime,  
Come softened by the distant shore;  
Though I have heard them many a time,  
They never rang so sweet before.  
A silence rests upon the hill,  
A listening awe pervades the air;  
The very flowers are shut and still,  
And bow'd as if in prayer.

And in this hush'd and breathless pause  
O'er earth, and air, and sky, and sea,  
A still low voice in silence goes,  
Which speaks alone, great God, of Thee!  
The whispering leaves, the far off brook,  
The linnet's warble fainter grown,  
The hound-bone bee, the homeward rook—  
All these their Maker own.

Now shine the starry hosts of light,  
Gazing on earth with golden eyes—  
Bright sentinels that guard the night,  
What are ye in your native skies?  
I know not—neither can I know,  
Nor on what leader ye attend,  
Nor whence ye come, nor whither go,  
Nor what your aim nor end.

In many places in the fields are now found numbers of spider-webs, sometimes in two or three thicknesses, one above the other; they are very annoying to the dogs while hunting, who are frequently compelled to tear them off with their paws. Numbers of these webs may at times be seen floating in the air like huge flakes of snow, and shining like silver as they descend in the sunshine. Partridges now resort to the stubble fields, having been compelled to retreat to cover during the noise and stir attendant upon gathering in the harvest. They prefer, when they have young ones, to nestle in the open fields, as they have there a better chance of escaping from stoats and weasels. Wood-owls are now heard booting in the night; and during a heavy gale of wind, which brings down thousands of leaves at a gust, the rattling of the branches and the hooting of the owls form a very solemn concert, especially at midnight to the ears of a lonely wayfarer who is making a short cut homeward through an old wood. The air is also now filled with winged emigrants, the down of thistles and dandelions, which go sailing away over many a broad field before they alight, and pitch their tents, in which they sleep throughout the winter—then rise up in a new form in the coming spring. What a beautiful picture is now presented in the Mirror of the Months, when the numerous flock is driven to the fold as the day declines, its scattered members converging towards a point as they enter the narrow opening of their nightly enclosure, which they gradually fill and settle into as a shallow stream runs into a hed that has been prepared for it, and there settles into a still pool. And, again, in the early morning, when the slender barrier that confines them is removed, they crowd and hurry out, gently intercepting each other; and, as they get free, pour forth their white fleeces over the open field, as a lake that has broken its bank pours its waters over the adjoining land; in each case the bells and meek voices of the patient people making music as they move, and the shepherd standing carelessly by leaning on his crook—even as shepherds did in the vale of Arcadia.

Another pleasant picture of autumn is the busy thatcher with the clear bright yellow straw strewn about the foot of his ladder, while he, high up, is making a golden roof over the treasures which have been gathered in from the harvest-field. Your good thatcher is generally an excellent maker of beehives, and his cottage is often situated by the side of a running stream; and there he steep his straw, and splits his long straight skains of bramble with which he binds his golden-colored domes together.







M	D	ANNIVERSARIES, OCCURRENCES, FESTIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT.				HIGH WATER		Day of the Year			
			SOUTHS.					SOUTHS.									AT LONDON BRIDGE.					
			Rises.	Before 12 o'clock.	Height above horizon.	Sets.	Rises.	Afternoon.	After-noon.	Height above horizon.	Sets.	Morning.	Before Sunrise.	Moon's Age.	After Sunset.	Morning.	Afternoon.					
			H. M.	M. S.	Deg.	H. M.	H. M.	H. M.	Deg.	H. M.	O'Clock. 2h. 4h. 6h.		O'Clock. 7h. 8h. 10h.		H. M.	H. M.						
1	M	Pheas. sht. beg.	6	1	10	21	35	5	40	5	41	11	43	37	1	4	44	1	20	1	38	274
2	Tu	L. Univ. op. 1828	6	3	10	40	35	5	38	6	7	Morning.	42	5	58		1	55	2	15	275	
3	W	Old St. Matthew	6	5	10	58	34	3	5	6	35	0	33	46	1	7	11	2	35	2	50	276
4	Th	Alpha Lyrae souths 5h. 39m. P.M.	6	7	11	17	34	5	32	7	6	1	25	50	1	8	28	3	10	3	30	277
5	F	[lippe born, 1773	6	9	11	34	33	3	29	7	41	2	19	53	3	9	43	3	45	4	5	278
6	S	Faith. Louis Phi.	6	10	11	52	33	1	27	8	23	3	14	56	3	10	57	4	25	4	45	279
7	S	18TH S. aft TRIN.	6	12	12	9	33	5	24	9	13	4	12	56	3	11	8	5	10	5	30	280
8	M	Beta Lyrae souths 5h. 35m. P.M.	6	14	12	26	32	1	22	10	11	5	10	56	1	1	8	5	55	6	20	281
9	Tu	St. Denys [beg.	6	16	12	42	32	1	20	11	16	6	8	54	1	2	0	6	50	7	20	282
10	W	Oxf. and Cam. T.	6	17	12	58	31	3	18	Morning.	7	5	52		2	45	7	55	8	40	283	
11	Th	Old Michael. Day	6	19	13	13	31	1	15	0	27	8	0	48	1	3	21	9	25	10	10	284
12	F	Gamma Aquile souths at 6h. 14m. P.M.	6	20	13	28	31	5	13	1	39	8	52	44	1	3	52	10	55	11	30	285
13	S	Trans.K.Ed.Con.	6	22	13	42	30	3	10	2	52	9	42	40	4	20		No Tide.	0	1		286
14	S	19TH S. aft TRIN.	6	24	13	56	30	1	8	4	10	31	35	1	4	47	0	25	0	50		287
15	M	[by Fire, 1834	6	25	14	9	30	5	6	5	14	11	18	—	5	12	1	15	1	35	288	
16	Tu	Houses Parl. des.	6	27	14	22	29	1	5	6	23	Afternoon	31	1	5	36	1	55	2	15	289	
17	W	Etheldreda	6	28	14	34	29	1	5	7	31	0	51	28	1	6	3	2	35	2	50	290
18	Th	St. Luke	6	30	14	45	28	3	5	8	37	1	37	24	6	31	3	5	3	25	291	
19	F	[1827	6	31	14	56	28	3	4	9	40	2	24	22	1	7	3	3	40	4	0	292
20	S	Bat. of Navarino.	6	32	15	6	28	4	56	10	39	3	11	19	1	7	39	4	15	4	30	293
21	S	20TH S. aft. TRI- nity. Battle of Trafalgar, 1805	6	34	15	16	27	3	4	11	35	3	59	18	8	22	4	45	5	0	294	
22	M	Alpha Aquile souths 5h. 35m. P.M.	6	36	15	25	27	1	4	Afternoon	4	46	18	1	9	9	5	20	5	40	295	
23	Tu	Beta Aquile souths 5h. 35m. P.M.	6	38	15	33	27	4	50	1	7	5	34	19	10	2	5	58	6	20	296	
24	W	St. Crispin	6	40	15	41	26	3	4	1	45	6	21	20	11	2	6	45	7	10	297	
25	Th	Alpha Cygni souths 6h. 16m. P.M.	6	42	15	48	26	1	4	2	18	7	8	23	1	Morning.	7	45	8	30	298	
26	F	Alpha Pegasi souths 5h. 33m. P.M.	6	44	15	54	26	4	43	2	47	7	55	26	0	5	9	10	9	50	299	
27	S	21st S. aft TRIN.	6	46	15	59	25	3	4	3	16	8	43	30	1	11	10	27	11	0	300	
28	S	St. Simon and St. Jude	6	48	16	4	25	4	39	3	40	9	31	34	2	20	11	35	11	59	301	
29	M	Fomalhaut souths 5h. 12m. P.M.	6	50	16	8	25	4	37	4	5	10	20	39	3	32	No Tide.	0	23		302	
30	Tu	Allhallows Eve	6	51	16	11	24	3	36	4	34	11	12	45	4	47	0	45	1	6	303	
31	W		6	53	16	14	24	4	34	5	3	Morning.	48	3	6	4	1	25	1	44	304	



## OCTOBER.

THE SUN is in the sign Libra till the 24th, on which day, at 0h. 16m. P.M., he enters the sign Scorpio (the Scorpion). On the 1st, he is 95,028,000 miles from the Earth.

On the 1st he rises 5° S. of E.; on the 11th, at E. by S.; and on the 31st, at E.S.E. He sets, on the 1st, at 5½° S. of W.; on the 11th, at ½° S. of W. by S.; and on the 31st, at ½° S. of W.S.W. points of the horizon. His time of southing, in common clock time, and his height in degrees at the same time, are given for every day on the opposite page.

The Moon is in the constellations Pisces and Cetus alternately till the 5th; in that of Taurus, on the 6th and 7th; in Gemini, on the 8th and 9th; in Cancer, on the 10th; in Leo, on the 11th, 12th, and 13th; in Virgo, from the 14th to the 16th; in Libra, on the 17th and 18th; in Ophiuchus, on the 19th, 20th, and 21st; in Sagittarius, on the 22nd and 23rd; in Capricornus, on the 24th; in Aquarius, on the 25th, 26th, and 27th; and in those of Pisces and Cetus alternately, till the end of the month.

She rises, on the 1st, at the same time as the Sun sets; from the 2nd to the 16th, during the night; from the 17th to the 30th, during the day; and at 29m. after the Sun sets on the 31st. She sets before the Sun rises on the 1st and 2nd; during the day, from the 3rd to the 17th; as the Sun sets, on the 18th; and during the night, from the 19th.

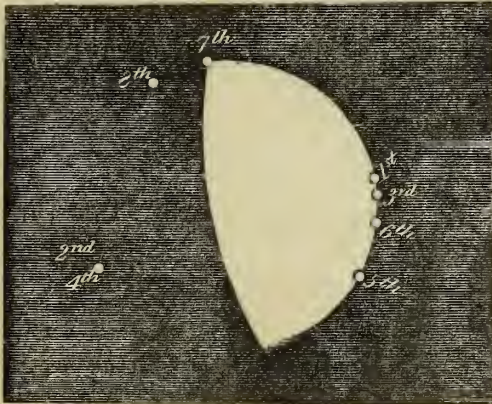
She is on the Equator the 2nd, the 14th, and the 29th. Her time of southing, in common clock time, and her height in degrees at the same time, are given for every day on the opposite page.

She is near Saturn on the 1st; Uranus, on the 2nd; Mars, on the 7th; Jupiter, on the 18th; Venus, on the 13th; Mercury, on the 17th; Saturn, on the 29th; and Uranus, on the 30th.

She is full on the 2nd, new on the 16th, and full a second time on the 31st; but without an Eclipse at these times.

She occupies nearly the same place in the heavens during the night, which is common to the 5th and 6th, as she did on September 8th, and occults several stars. The Moon at the time is 19 days old; and the form of her illuminated portion is that called gibbous. The disappearances occur at the bright limb, and the re-appearances of the stars take place at the dark limb, at the places shown in the annexed diagram.

OCCULTATIONS OF STARS BY THE MOON, OCTOBER 5 AND 6.



	will disappear at the place marked	D. H. M.	and re-appear at the place marked	D. H. M.
48 Tauri	1 at 5 11 38 P.M.		2 at 6 0 42 A.M.	
Gamma Tauri	3 at 6 1 40 A.M.		4 at 6 2 53 "	
Theta 1 Tauri	5 at 6 6 24 "		8 at 6 7 28 "	
Theta 2 Tauri	6 at 6 6 30 "		7 at 6 7 24 "	

The star Aldebaran will be near the Moon at the time of the latter occultations.

MERCURY is in the constellation Virgo till the 6th; in that of Libra, from the 7th to the 18th; and in that of Virgo, from the 19th.

He is an evening star till the 15th, and a morning star from the 25th. He sets on the 1st at 24m., and on the 20th at 4m., after the Sun sets. He rises on the 22nd at 1m., and on the 31st at 18m., before the Sun. He is not well situated for observation. He rises, on the 1st, at 2½° S. of E.S.E.; on the 12th, at 6½° S. of E.S.E.; on the 23rd, at the E.S.E.; and on the 31st, at 2½° S. of E. by S. He sets near the W.S.W. at the beginning of the month. He is moving eastward among the stars till the 11th; is stationary among them on the 12th and 13th; and is moving westward from the 14th to the 31st. He is near the Moon on the 17th, and is in inferior conjunction with the Sun on the 24th.

VENUS is in the constellation Leo till the 16th; and in that of Virgo from the 17th.

She is a morning star throughout the month; and rises, on the 1st, at 2h. 36m. A.M.; and on the last day, at 4h. 1m. A.M.; at 7° N. of E. by N., on the 1st; at the E. by N., on the 12th; and at the E. points of the horizon, on the 27th. She is moving eastward among the stars throughout the month. She is in perihelion on the 21st; is near the Moon on the 13th, and Jupiter on the 9th; therefore, at this time, she occupies that position in the heavens, relative to the two stars Regulus and Beta Leonis, that Jupiter does on October 9, in the diagram shewing the path of Jupiter this month, and inserted in the month of December.

MARS is in the constellation Taurus on the 1st; and in Gemini from the 2nd till the end of the month. He is visible throughout the greater part of the night; and rises, on the 1st, at 8h. 5m. P.M.; and on the last day, at 7h. 25m. P.M.; at 3½° N. of N.E. by N., on the 1st; and at 6° N. of N.E. by N., on the last day. His times of southing are given below; his altitude above the horizon when he is south, on the 1st day, is 61½°; and on the last day, is 62½°. He sets at about 11h. P.M. He is moving slowly eastward among the stars, and is nearly stationary among them at the end of the month, as shewn in the diagram inserted in December, which is in continuation of that in August. He is near the Moon on the 7th.

JUPITER is in the constellation Leo throughout the month.

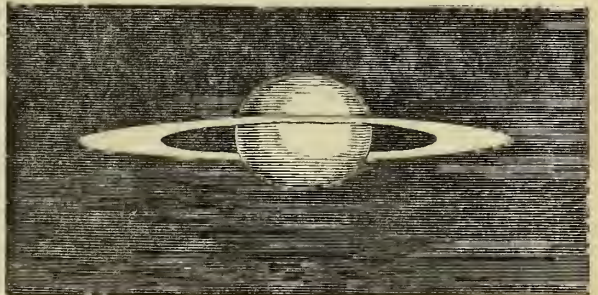
He is a morning star; and rises at 3h. 24m. A.M., on the 1st, at 2° N. of E. by N.; on the 20th, at 2h. 31m. A.M., at E. by N.; and on the last day, at 1h. 58m. A.M., at 1½° S. of E. by N. He is moving eastward among the stars; and is near Venus on the 9th, and the Moon on the 13th. See his path among the stars this month in the diagram in December.

JUPITER'S SATELLITES.—The Immersions of the 1st take place at the distance of less than one-half, and those of the 2nd at about one-half of the diameter from the Planet, to the right as seen in a non-inverting telescope, and to the left as seen through an inverting telescope.

SATURN is in the constellation Cetus throughout the month.

He is visible throughout the greater part of the night; and rises a little S. of E., on the 1st, at 3h. 38m. P.M.; on the 15th, at 4h. 41m. P.M.; and on the last day, at 3h. 36m. P.M. His altitude at the time of southing, on the 1st day, is 39½°, increasing gradually to 40° on the last day. He moves slowly westward among the stars; and is near the Moon on the 1st, and again on the 29th. His ring is now opened a little; and the following is his telescopic appearance this month.

TELESCOPIC APPEARANCE OF SATURN IN THE MONTH OF OCTOBER, 1849.



Scale, 20 seconds of arc to one inch.

URANUS rises about 3° N. of E. by N., on the 1st, at 6h. 4m. P.M.; and on the last day, at 4h. 5m. P.M. He is south on the 15th, at 11h. 54m. P.M., at an altitude of 47°. He moves slowly westward among the stars; and is near the Moon on the 3rd, and again on the 30th. He is in opposition to the Sun on the 17th.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					JUPITER'S SATELLITES.						OCCULTATIONS OF STARS BY THE MOON.				
	Mercury.		Venus.		Mars.	Jupiter.		Saturn.								
	Afternoon	Morning.	Morning.	Morning.	Afternoon	Eclipses of				Names of the Stars.	Magni- tude.	Times of disappearance and re-appearance of the Star.	At the dark or bright limb of the Moon.			
							1st. Sat.		2nd. Sat.							
							Immersion.		Immersion.							
	H. M.	H. M.	H. M.	H. M.	H. M.	D.	H. M.	D.	H. M.							
1	1 22	9 38	5 9	10 11	11 37	19	5 19 A.M.	13	4 40 A.M.	115 Tauri	5½	{ 7 5 49 A.M. 7 6 42 A.M.	Bright Dark			
6	1 17	9 41	4 58	9 55	11 16					27 Piscium	5	{ 28 4 2 P.M. 28 5 1 P.M.	Dark Bright			
11	1 6	9 44	4 46	9 39	10 55					29 Piscium	5	{ 28 5 58 P.M. 28 6 54 P.M.	Dark Bright			
16	0 44	9 47	4 33	9 23	10 34					A star in Arietis	4	{ 31 6 28 P.M. 31 7 24 P.M.	Bright Bright			
21	0 10	9 50	4 19	9 7	10 13											
26	Morn.	9 53	4 4	8 50	9 52											
31	10 55	9 56	3 47	8 34	9 32											

Days of the Month.	TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.														RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.											
															MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
															Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
FULL MOON	..	..	2d.	5h.	33m.	P.M.	1	14h.	2m	15° 31'	10h.	18m	11° 22'	5h.	49m	23° 17'	10h.	51m	8° 22'	0h.	20m	0° 45'	1h.	33m	9° 6'	
LAST QUARTER	..	..	9	0	44	A.M.	6	14 17		17 12	10 41		9 22	5 57	23 27	10 55	8 0	0 18	0 54	1 33		9 2				
NEW MOON	..	..	16	5	13	A.M.	11	14 26		17 59	11 4		7 15	6 5	23 36	10 58	7 38	0 17	1 3	1 32		8 57				
FIRST QUARTER	..	..	24	7	4	A.M.	16	14 23		17 25	11 27		5 2	6 11	23 45	11 2	7 16	0 16	1 11	1 31		8 53				
FULL MOON	..	..	31	4	47	P.M.	21	14 9		15 3	11 50		2 45	6 17	23 54	11 5	6 55	0 14	1 19	1 30		8 49				
PERIGEE	..	..	6	10	0	A.M.	26	13 47		11 23	12 12		0 24	6 21	24 4	11 9	6 35	0 13	1 26	1 30		8 44				
APOGEE	..	..	22	3	0	A.M.																				





Oft wandering by the woodland side  
 You hear the distant laughter sound ;  
 Or see the snow-white kirtles glide  
 Where the green hazels most abound :  
 All merry, noisy, nutters they,  
 Who through the 'tangling forests stray.—The Country.

ALL the wood-nuts gathered before the commencement of this month are worthless, when compared with those that still hang upon the hazels. Like ripe acorns, a jerk of the branch sends them dancing out of their vandyked cups, and they come tumbling down upon the moss, or silky forest-grass, like large dark brown beads, every one ripe, and almost ready to burst out of its shell, while each kernel is covered with a rich russet cloak.

As I last year entered, somewhat lengthily, into our country nutting excursions, I need only refer to the present engraving as illustrative of a scene before described. I have before dwelt upon the solemn associations awakened by the close of autumn. For although all its varied hues are beautiful to look upon, still it is a melancholy sight to witness the falling leaves; to see all that rendered summer so green and lovely, unhoused—drifted from their shady dwelling-places, leaving their old homes behind, naked and desolate; and wandering, as it were, houseless along the brown highways, over the wet and withered grass, or lying down to die in the wayside ditches. Who can walk abroad at such a season, without thinking of that change which must, in the end, take

place—without turning our thoughts to those who have gone before us, like companions who but set out earlier in the day, and gained the inn where we must all sleep, and retired to rest before we arrived?

In my "Year Book" I have described a forest scene, familiar to me from the days of my childhood; and as a railway is overthrowing these old wild-wood fastnesses, I shall transfer this picture of a spot that had stood unaltered for centuries, to the descriptive pages of this Almanack, conscious that I should but weaken my word-painting were I to alter my first sketch.

Acres of huge gorse bushes stretched to the very verge of this wild forest-land, many of them standing higher than the head of a tall man; while upon the edge of the woodland grew thousands of wild brambles, that had trailed over the low bushes, and formed a broad impenetrable hedge, so wide that several wag-gons, could the underwood have borne the weight, might have been driven over them abreast. This waste had never been cultivated since the dawning of creation. For miles around, there was no vestige of the hand of man. Here grew hawthorns so huge, old, grey, and weather-beaten, that they looked as if a score



of stems had been twisted into one, and become so hardened by time, that you might fancy they were bars of iron fused together so closely, that neither storm nor thunder had been able to rend them. Here and there arose giant crab-trees, their gnarled and knotted stems overgrown with green and yellow moss, and long flaky lichens, which hung like ragged drapery from the boughs. Even the sun-stained fruit, when mellowed by the mists of October, was sour as vinegar. Some of the trunks were hollow and decayed; and looked like strange skeletons that had lived at a remote period of time, when man was not, so white, bleached, and monstrous were their forms; and from the decayed centre had, in some places, sprung up another tree, that waved green above the old desolation. Scattered at picturesque distances, we saw immense oaks, whose shadows stretched far and wide, and struck the mind with wonder, to behold such gigantic arms spread out with no other support than the iron body from which they sprang; while, to pace the length of a single bough, seemed like treading a long gallery. Many of these had, centuries ago, been struck by the thunder-bolt, or blackened by the red-armed lightning; yet lived on, in spite of the blaze which had burnt their branches and singed their ancient heads—standing like monuments that marked some old world which had, undated ages ago, passed away, and left the skeletons of those mighty giants to proclaim the bulk and vastness of that unrecorded era. And all around this wild and wooded wilderness of hoary trees, there extended a pathless waste of entangling under-wood where the hazel and the hawthorn, the black bullace, and the armed sloe were blended, and matted, and twisted with the holly and the bramble and the prickly rose; while the woodbine climbed high over all, and, like a lady from her turret, looked out upon the wild and silent scene. It was only where the red fox, or the badger, or the daring hunter had forced a passage, that we were able to make our way along this busby barrier. It recalled those graphic lines of Chaucer's, of a forest,

In which there dwelleth neither man nor beast,  
With knotty, knurly, barren trees old,  
Of stubby shape, and hideous to behold.

Above this vast covert of creeked branches, and spiked bushes, and trailing briars which seemed to have been struggling for ages for the mastery, there hovered scores of birds of prey—hawks of every species, dusky ravens, and horned owls that stared upon us from out the hollow trees at noon-day, and went sailing across the wild underwood, and between the ancient branches of the trees, like winged ghosts. And ever from the tangled thicket started some wild animal, the huge fox, or the grey badger, the savage wild cat and the climbing marten; and we sometimes disturbed the stoat as he fed upon a young hare, or drove the weasel from his banquet, and picked up the ringdove, warm and bleeding, that he was feeding upon; or saw the fierce eyes of the polecat glaring upon us, as if wondering why we had disturbed his solitary dominions. Great hairy bats went gliding by in the twilight, with their leathern wings outspread; and black water-rats made a hollow sound, as they plunged into the forest brook, and were soon lost in the dark water, or among the black and rotten leaves.

As I painted the same scene in verse, in my youthful years, I here present my readers with the other picture.

Majest'c grandeur stamp'd that solemn scene.  
For weary miles an outstretch'd forest lay,  
But seldom trod by aught of mortal men.  
Here nature sat enthroned in wild array,  
Profusely deck'd with thorns and witching bays,  
Her bosom oaks threw afar their shady arms  
O'er creeping brambles that did wildly stray  
Around the trunks, where dark-leaved ivy swarms,  
And none the ruddy squirrel 'mid its play alarms.

The sul'en crab-tree flourish'd 'neath the beech:  
Above, the sable pine did rear its head,  
As if the silver clouds it vain would reach.  
So high these dark and branchy boughs were spread  
The rattling canes wild winds profusely shed:  
Luxuriant box stood robed in gloomy hue,  
And cypress nodded o'er the green's dark bed,  
Where stately ash o'er-toppled the bow-famed yew—  
All burst in silent grandeur on the astonish'd view.

The glens and glades, and dells were sprinkled round  
With healing herbs and variegated flowers,  
No bell or bud of which a farding o'er'd;  
No studied art be deck'd those native bowers:  
There nature's rugged breast bared to the showers,  
Bore in its solitude the roses' bloom:  
Where high the woodbines rear their painted towers,  
There unseen violets 'mid the forest gl'om  
Blossom and die, and blow again above the tomb.

No habitation graced that rugged scene,  
No pathway bore the track of man or steed:  
Dark trees those dells from scorching sunbeams screen,  
Where sharp-beak'd hawks and speckled songsters feed,  
And diving otters shake the tufted reed.  
No cultivation bore smooth nature's face;  
Nor waving corn, nor hedge-enclosed mead,  
Across this savage scene the eye could trace;  
It stood as when the Cyani here did trace the chase.

It has no doubt struck many, during an autumn ramble, how slowly and almost imperceptibly the changes of the months take place. The seasons themselves are striking enough, but to watch the slow progress by which they reach the different land-marks of the year, is like tracing the movement of the hand of a watch around the dial's face. Take a home garden, for instance—the smaller the better for observation—and recal the time when the first scarlet runner, nasturtium, sweet pea, or convolvulus sprang up, each a tiny speck of green above the mould. For days and days you can scarcely perceive them increase; the two little leaves grow larger by degrees; and then other tiny buds shoot out; and you are lost, between noting the expansion of the first, and the slow advance of the latter. Time rolls on, and they begin to twine and flower, one here, another there; you marvel why the one is so early, and the other so late. The first flowers attract your attention the most, and when the whole row is hung with bloom, you are anxious to find the first pod. It is the many stages through which vegetation passes that confuse observation, that induce us to take so little note of time, that causes autumn to steal upon us almost unawares. It is the same with the lengthening and shortening of the days: we see the hours, and not the minutes—the rock, but not the coral insect that was instrumental in raising it.

Nor less wonderful is the departure of the birds—which we find alluded to in the Old Testament—a proof that the habits of these winged voyagers were the same three thousand years ago. For in the Book of Jeremiah it is written, that "The stork in the heavens knoweth her appointed times: and the turtle, and the crane, and the swallow observe the time of their coming." In Mr. Couch's interesting work on Animal Instinct, of which I have, more than once, made favourable mention, I find the following original observations on the migration of birds:—"The time of the withdrawal of the swallows and martens is more irregular than that of their coming, and begins with the swift, which usually

takes its flight in the first or second week of August—the whole colony disappearing at once—the actual departure being preceded, for a few days, by exercises in flying, which seem to be practising in sport what they soon expect seriously to execute. They may be witnessed ascending in a spiral manner, and in very close phalanx, with even more than their usual rapidity, to a very great height; and having two or three times executed this movement, they suddenly sink down to their nests, after which, till the next day, they are no more to be seen. A remark often made—that the swallow tribe go away earliest in the warmest seasons—appears to be correct; but whether there be any physiological reason for this, is a matter of doubt. The principal cause of their early readiness for migration seems to be, that less interruption has been thrown in the way of the formation of the nest; and that there has been a greater abundance of insect food for the support of the young, which has accelerated their growth. In an unfavourable season in these respects, or when other causes have occurred to retard the maturity of the brood, the birds have not only been kept later, but in many instances the migratory instinct has grown sufficiently strong to overcome the force of parental affection, and the brood has been left to perish in the nest. To attend on a helpless young one, a single swift has been known to remain for a fortnight after the departure of its companions; and it is a frequent occurrence for the swallow to leave its brood to perish in the nest. As autumn approaches the swallows return to their nests, only for the sake of sleep, or as a convenient resting-place; and about the middle of September, after having shown their social disposition by assembling in companies, the earliest of them enter upon their autumnal migration, for which the proper season is the month of October. The flight to their winter's destination is less direct than their coming; so that it is not uncommon for small parties to appear again, long after they have seemed to have left us. Such is frequently the case in November."

The golden woodpecker laughs loud no more;  
The pyc no longer braves; no longer scold's  
The saucy jay. Who sees the goldfinch now  
The feather'd ground-squirrel pluck, or hears him sing  
In bowers of apple blossoms perch'd? Who sees  
The chimney-haunting swallow skim the pool,  
And quietly dip, or hear his wily song  
Twitter'd to dawdling day. All, all are hush'd!—HERDS.

I have before pointed out the beautiful days that often come with the close of October: the fine blue middle-tint that hangs over the landscape is never seen to greater perfection in England than at this season of the year, when the weather is settled.

Those who love to ramble in the country will find as much amusement and instruction now, as they did in the midst of summer. For many a lovely nook, then hidden by masses of foliage, will now break in new beauty upon the eye. Weeds and flowers have run into seed; and great is the variety of forms they have assumed in this new stage of existence. Urn, and cup, and bell, and ball, and vessels of almost every shape, stand laden with the flowers of another summer; and but wait for the strong winds to blow open the doors of their garner, that they may scatter their seeds upon the earth. But these will soon pass away, and then, instead of the faded foliage of autumn, we shall see the hedges shorn of their withered leaves, and all bare and naked, saving where they are hung with hips and haws, or where the bright, holly and the dark-leaved ivy throw over them a patch of green. We shall soon hear the wind howling about the house at night, like a hungry wolf, and trying the doors and window shutters, as if determined to enter; but finding no way there, getting into the chimney, and there bellowing, and moaning, and growling, as if it stuck fast. And while we listen to such sounds, we shall recal the darkness that reigns over the sea: the ships that are driven like autumn leaves before the mighty storm, of shoals, and sand, and wrecks, and huge promontories lashed by the mountainous waves, that roll a ray, and go moaning along the beaten beach, as if hungry for their prey. We shall think of desolate moors, and lonely roads, and solitary toll-gates that stand on the edges of treeless commons, or between the wild sweep of lonesome woods where groaning branches ever utter deep dolorous sounds, as if moaning for very pain—places where travellers have been way-laid, and where gibbet-poles stand, whose irons ever swing and creak. Spots that have—

A weird-like and eerie look.  
As, if murder lurked any where, there it would be:  
Ruinous, shadowy, farseome, and lone,  
Abounding with whispers that seem not its own,  
Where rounds, not of earth, shake each grey old a h tree.







M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE.		Day of the Year.
			SOUTHS.					SOUTHS.					Before Sunrise.		After Sunset.		Morning.	Afternoon.	
			Rises.	Before 12 o'clock.	Height above horizon.	Sets.	Rises. Afternoon	After- noon.	Height above horizon.	Sets. Morning.	O'Clock. 2h. 4h. 6h.	Moon's Age.	O'Clock. 6h. 8h. 10h.						
1	Th	<i>All Saints</i>	6 56	16	24	4 32	5 37	0 6	52 <sup>1</sup> / <sub>2</sub>	7 23			16			2 5	2 24	305	
2	F	<i>All Souls. Mich.</i>	6 56	16	17	23 <sup>3</sup> / <sub>4</sub>	4 31	6 17	1 35	5 <sup>1</sup> / <sub>2</sub>	8 40			17			2 44	3 5	306
3	S	Term begins.	6 59	16	17	23 <sup>1</sup> / <sub>2</sub>	4 29	7 6	2 25	7 <sup>3</sup> / <sub>4</sub>	9 55			18			3 25	3 45	307
4	S	22ND S. aft. TRI- GUNPOWDER PLOT	7 1	16	16	23	4 27	8 3	3 25	7	11 1			19			4 10	4 30	308
5	M	<i>St. Leonard</i>	7 2	16	14	22 <sup>3</sup> / <sub>4</sub>	4 26	9 8	4 25	5 <sup>3</sup> / <sub>4</sub>	11 59			20			4 55	5 15	309
6	Tu	Fomalhaut souths 7h. 42m P.M.	7 4	16	12	22 <sup>1</sup> / <sub>2</sub>	4 24	10 18	5 15	3 <sup>1</sup> / <sub>4</sub>	Afternoon			21			5 40	6 10	310
7	W	Alpha Pegasi souths 7h. 46m. P.M. [1811]	7 6	16	8	22 <sup>1</sup> / <sub>4</sub>	4 23	11 30	5 58	49 <sup>3</sup> / <sub>4</sub>	1 25			22			6 35	7 10	311
8	Th	P. of Wales born	7 7	16	4	22	4 22	Morning.	6 50	45 <sup>3</sup> / <sub>4</sub>	1 57			23			7 45	8 27	312
9	F	Alpha Pegasi souths 7h. 37m. P.M.	7 9	15	59	21 <sup>1</sup> / <sub>2</sub>	4 20	0 42	7 40	41 <sup>1</sup> / <sub>2</sub>	2 27			24			9 10	9 50	313
10	S	23RDS. aft. TRIN.	7 10	15	53	21 <sup>1</sup> / <sub>4</sub>	4 19	1 53	8 28	37 <sup>1</sup> / <sub>4</sub>	2 52			25			10 30	11 10	314
11	M	<i>Britius</i>	7 12	15	47	21	4 18	3 2	9 15	32 <sup>3</sup> / <sub>4</sub>	3 15			26			11 40	No Tide.	315
12	Tu	Camb. Term div.	7 14	15	39	20 <sup>3</sup> / <sub>4</sub>	4 16	4 11	10 0	28 <sup>3</sup> / <sub>4</sub>	3 40			27			0 5	0 30	316
13	W	<i>Machutus</i>	7 16	15	30	20 <sup>1</sup> / <sub>2</sub>	4 14	5 19	10 46	25 <sup>3</sup> / <sub>4</sub>	4 5			28			0 53	1 15	317
14	Th	Alpha Andromede souths 8h 24m. P.M.	7 18	15	21	20 <sup>1</sup> / <sub>4</sub>	4 12	6 25	11 32	22 <sup>1</sup> / <sub>4</sub>	4 32			29			1 35	1 50	318
15	F	Polaris souths 9h. 21m. P.M.	7 20	15	11	20	4 11	7 29	Afternoon	19	5 1			1			2 10	2 30	319
16	S	Hugh Bp. of Lin.	7 22	15	0	19 <sup>3</sup> / <sub>4</sub>	4 10	8 30	1 5	18 <sup>3</sup> / <sub>4</sub>	5 35			2			2 45	3 0	320
17	M	24TH S. aft. TRIN.	7 23	14	48	19 <sup>1</sup> / <sub>2</sub>	4 9	9 28	1 53	18 <sup>1</sup> / <sub>4</sub>	6 16			3			3 20	3 35	321
18	Tu	Ed. King & Mar.	7 25	14	35	19 <sup>1</sup> / <sub>4</sub>	4 8	10 19	2 40	18 <sup>1</sup> / <sub>2</sub>	7 1			4			3 50	4 7	322
19	W	Princess Royal b.	7 27	14	22	19	4 7	11 5	3 28	19 <sup>3</sup> / <sub>4</sub>	7 52			5			4 20	4 40	323
20	Th	<i>St. Cecilia</i>	7 28	14	8	18 <sup>3</sup> / <sub>4</sub>	4 6	11 46	4 15	22	8 49			6			4 55	5 15	324
21	F	<i>St. Clement. Old</i>	7 30	13	52	18 <sup>1</sup> / <sub>2</sub>	4 5	Afternoon	5 2	24 <sup>3</sup> / <sub>4</sub>	9 50			7			5 35	5 55	325
22	S	Martmas Day	7 31	13	37	18 <sup>1</sup> / <sub>4</sub>	4 3	0 50	5 48	28 <sup>1</sup> / <sub>2</sub>	10 54			8			6 18	6 40	326
23	M	25TH S. aft. TRIN	7 33	13	20	18 <sup>1</sup> / <sub>4</sub>	4 2	1 16	6 34	32 <sup>1</sup> / <sub>2</sub>	Midnight.			9			7 5	7 40	327
24	Tu	Mich. Term ends.	7 35	13	3	18	4 0	1 42	7 20	37	Morning.			10			8 15	8 55	328
25	W	Princess Mary	7 36	12	44	17 <sup>3</sup> / <sub>4</sub>	3 58	2 8	8 8	41 <sup>3</sup> / <sub>4</sub>	1 9			11			9 28	10 5	329
26	Th	Adelaide born, 1833.	7 38	12	26	17 <sup>1</sup> / <sub>2</sub>	3 57	2 23	8 57	46 <sup>1</sup> / <sub>3</sub>	2 21			12			10 35	11 10	330
27	F	Alpha Arietis souths 9h. 27m. P.M.	7 39	12	6	17 <sup>3</sup> / <sub>4</sub>	3 56	3 0	9 49	50 <sup>3</sup> / <sub>4</sub>	3 34			13			11 40	No Tide.	331
28	S	Gamma Pegasi souths 7h. 30m. P.M.	7 40	11	46	17 <sup>1</sup> / <sub>4</sub>	3 55	3 30	10 45	54 <sup>1</sup> / <sub>4</sub>	4 52			14			0 5	0 30	332
29	M	<i>St. Andrew</i>	7 42	11	25	17	3 54	4 6	11 43	56 <sup>1</sup> / <sub>3</sub>	6 12			15			0 50	1 15	333
30	Tu		7 44	11	3	16 <sup>3</sup> / <sub>4</sub>	3 54	4 53	Morning.	57 <sup>1</sup> / <sub>2</sub>	7 29						1 40	2 0	334



## NOVEMBER.

THE SUN is in the sign Scorpio till the 22nd, on which day, at 8h. 53m. A.M., he enters the sign Sagittarius (the Archer).

On the 1st, he is 94,213,000 miles from the Earth. He rises on the 1st,  $3^{\circ}$  S. of E.S.E.; and on the 26th at the S.E. by E.; he sets on the 1st, at  $1^{\circ}$  S. of W.S.W., and on the 26th, at the S.W. by W. points of the horizon. His time of southing, in common clock time, and his height in degrees at the same time, are given for every day on the opposite page.

The Moon is in the constellation Taurus till the 3rd; in Gemini, on the 4th and 5th; in Cancer, on the 6th; in Leo, on the 7th, 8th, and 9th; in Virgo, from the 10th to the 13th; in Libra on the 14th and 15th; in Ophiuchus, on the 16th and 17th; in Sagittarius, on the 18th and 19th; in Capricornus, on the 20th; in Aquarius, on the 21st, 22nd, and 23rd; in Pisces and Cetus alternately, till the 28th; and in Taurus, till the end of the month.

She rises after the Sun sets, and before he rises, or during the night, till the 14th; during the day, from the 15th to the 28th; and shortly after sunset, on the 29th and 30th. She sets during the day till the 13th, and during the night from the 14th.

She is on the Equator on the 11th and on the 25th. Her time of southing, in common clock time, and her height in degrees at the same time, are given for every day on the opposite page.

She is near Mars on the 4th; Jupiter, on the 9th; Venus, on the 12th; Mercury, on the 13th; Saturn, on the 25th; and Uranus, at midnight on the 26th. She is new on the 14th, and full on the 30th; but without an Eclipse at both times.

She occults several stars during the night, common to the 29th and 30th, and among them Aldebaran. She is full, and therefore both the disappearances and re-appearances take place at the bright edge of the limb, at the places shown in the annexed diagram in which V indicates the highest point of the Moon at the time of the occurrence of each phenomenon.

## OCCULTATIONS OF STARS BY THE MOON, NOVEMBER 29 AND 30.

V

D. H. M.

D. H. M.

	{ will disappear at the place marked }	1 at 29 6	2 P.M. { and re-appear at the place marked }	2 at 29 6 57 P. M.
48 Tauri		3 at 29 7 43	"	4 at 29 8 46 "
Gamma Tauri	"	5 at 30 0 12 A.M.	"	9 at 30 1 12 A.M.
Theta 1 Tauri	"	6 at 30 0 18 "	"	7 at 30 0 52 "
A star in Taurins	"	8 at 30 1 8 "	"	10 at 30 2 11 "
Aldebaran	"	11 at 30 3 43 "	"	12 at 30 4 42 "

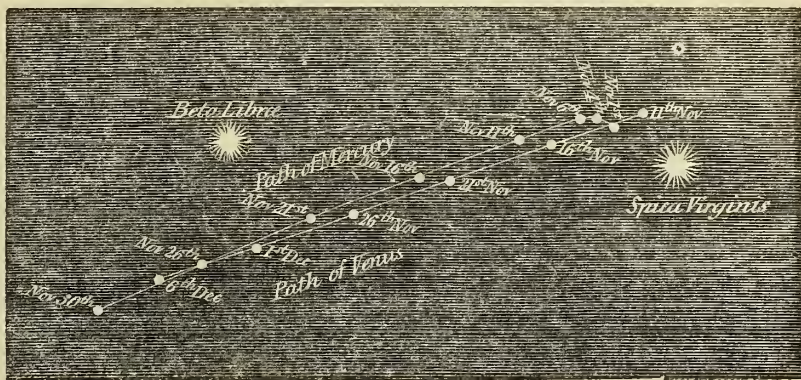
TIMES OF CHANGES OF THE MOON; And when she is at her greatest distance (Apogee), or her least distance (Perigee), from the Earth, in each Lunation.

LAST QUARTER	NEW MOON	FIRST QUARTER	FULL MOON	PERIGEE	APOGEE
.. 7d. 8h. 23m. A.M.	.. 14 9 13 P.M.	.. 23 2 24 A.M.	.. 30 3 25 A.M.	.. 2 11 P.M.	.. 18 9 P.M.
1 13h. 33m	6 13 38	11 13 55	16 14 20	21 14 48	26 15 18
8° 5'	7 51 13	9 24 13	11 51 13	14 35 12	17 15 14
2° 27'	4 49 6	7 10 6	9 27 6	11 40 6	13 45 6
6h. 25m	6 27 24	6 27 24	6 25 24	6 22 25	6 17 25
24° 17'	11 16 53	11 19 56	11 21 59	11 24 54	11 26 50
11h. 13m	6° 11'	5 36 0	5 19 0	5 4 0	4 50 0
6° 11'	0 11 1	0 11 1	0 9 1	0 9 1	0 9 1
1° 33'	1 39 1	1 43 1	1 46 1	1 49 1	1 50 1
1h. 29m	8° 35'	8 35'	8 27'	8 24'	8 21'

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	13h. 33m	8° 5'	12h. 39m	2° 27'	6h. 25m	24° 17'	11h. 13m	6° 11'	0h. 12m	1° 33'	1h. 29m	8° 35'
6	13 38	7 51 13	2 49	6 27	6 27	24 29	11 16	5 36	0 11	1 39	1 28	8 35
11	13 55	9 24 13	7 10	6 27	6 27	24 43	11 19	5 53	0 11	1 43	1 27	8 31
16	14 20	11 51 13	9 27	6 25	6 25	24 59	11 21	5 19	0 9	1 46	1 27	8 27
21	14 48	14 35 12	11 40	6 22	6 22	25 16	11 24	5 4	0 9	1 49	1 26	8 24
26	15 18	17 15 14	13 45	6 17	6 17	25 33	11 26	4 50	0 9	1 50	1 26	8 21

## PATHS OF MERCURY AND VENUS, DURING THE MONTH OF NOVEMBER, 1849, WITH RESPECT TO THE FIXED STARS.



Scale, 12 degrees to one Inch.

MERCURY is in the constellation Virgo till the 16th; and in that of Libra, from the 17th.

He is a morning star; and rises on the 1st, at 1h. 27m.; on the 7th, at 1h. 55m.; on the 8th, at 1h. 54m.; on the 15th, at 1h. 48m.; and on the 30th, at 59m. before the Sun rises. He is favourably situated for observation throughout the month. He rises on the 1st, at  $1^{\circ}$  S. of E. by S.; on the 20th, at E.S.E.; and on the 30th, at  $8^{\circ}$  S. of E.S.E. He is near the Moon on the 9th; and is at his greatest west elongation on the same day. His path among the stars is shown in the annexed diagram.

VENUS is in the constellation Virgo till the 22nd; and in that of Libra, from the 23rd.

She is a morning star throughout the month; and rises on the 1st, at 4h. 5m. A.M.; and on the last day at 5h. 33m. A.M.; at  $4^{\circ}$  S. of E. on the 1st; at E. by S. on the 11th; and at E.S.E. on the 27th. She is moving eastward among the stars throughout the month; is near the Moon on the 12th. Her path among the stars during the month is shown in the preceding diagram.

MARS is in the constellation Gemini throughout the month.

He is visible throughout the night; and rises on the 1st, at 7h. 21m. P.M.; and on the last day, at 5h. 4m. P.M.; at  $6^{\circ}$  N. of N.E. by N. on the 1st; and at  $7^{\circ}$  N. of N.E. by N. on the 30th. His times of southing are given below; and his altitude above the horizon when he souths, on the 1st, is  $62^{\circ}$ ; and on the last day, is  $64^{\circ}$ . He sets at about 11½m. A.M. He is stationary among the stars till the 16th; and is moving slowly westward from the 17th to the end of the month, as shown in the diagram in December; and is near the Moon on the 4th.

JUPITER is in the constellation Leo throughout the month.

He is a morning star; and rises at 1h. 55m. A.M., on the 1st, at  $1^{\circ}$  S. of E. by N.; and on the last day, at 0h. 28m. A.M., at  $3^{\circ}$  S. of E. by N.; souths at an altitude of  $44^{\circ}$  on the 1st, decreasing to  $43^{\circ}$  on the last day. He is moving eastward among the stars; and is near the Moon on the 9th.

JUPITER'S SATELLITES.—The Immersions of the 1st take place at the distance of one-half; those of the 2nd, at that of one diameter, nearly; those of the 3rd take place at the distance of one and a half, and that of the 4th at two diameters from the Planet. The Emission of the 4th takes place at the distance of one and a half diameter, nearly. All these phenomena occur on the right of the Planet, as seen through a telescope which does not invert, and to the left as seen through an inverting telescope.

SATURN is in the constellation Cetus throughout the month.

He is an evening star, and rises between 1½h. and 3½h. P.M. He souths at an altitude of  $40^{\circ}$  on the 1st; and of  $40^{\circ}$  on the last day. He sets on the 1st, at 3h. 24m. A.M.; and on the last day, at 1h. 24m. A.M.; at a point a little S. of W. He moves slowly westward till the 15th; and is stationary among the stars during the remainder of the month.

URANUS rises about  $2^{\circ}$  N. of E. by N., on the 1st, at 4h. 0m. P.M.; souths on the 15th, at 9h. 47m. P.M., at an altitude of  $47^{\circ}$ ; and he sets on the 1st, at 5h. 36m. A.M.; and on the last day, at 3h. 37m. A.M. He is moving slowly westward among the stars; and is near the Moon on the 26th.



# NOVEMBER.-GUY FAWKES DAY.



Please to remember the Fifth of November  
Gunpowder treason and plot;  
I know no reason why gunpowder treason  
Should ever be forgot. *Old Ditty.*

NOVEMBER brings with it Guy Fawkes Day, which, twenty years ago, in the country, was a common holiday, and not to burn Guy at night, and spend all the money got during the day in fireworks, would in our boyish days have been considered treason by the worthy parson, churchwardens, overseers, and every other "good man and true." We had some very misty notions about Guy Fawkes and King James and King William—not that we obtained our knowledge from history so much as the Common Prayer Book, which, although it taught us to pray for our enemies, said not a word against the burning of Guy Fawkes; indeed, this we considered the most important proof of our paying "due observance" to the day. Our notions of the aforesaid Guy were also very peculiar. We believed him to have been a very ugly sort of a fellow, with a long red nose, who levied blackmail, in his day, by being carried about from house to house, with a lantern in one hand, a match in the other, and we knew not how many pounds of gunpowder in his pockets; and that people gave him money to prevent him from blowing up their houses; further, that he at last grew so bold as to beg of Parliament, which was, in itself, a not very uncommon act; that they either refused to relieve him on the spot, or to grant him a pension; and that he threatened to serve King, Lords, and Commons, as he had threatened to serve all other liege

subjects, and at last became so overbearing that all London rose up against him as one man; that he was banished the kingdom, and then burnt in effigy for having been found prowling about the vaults, into which no end of small casks had been smuggled; that some said they contained gunpowder; others that Guy knew as well as the members themselves what the concealed casks contained; and that a nose like his would never have been allured into such places had there been nothing better than gunpowder. Then the plot grew too thick for our boyish comprehension; there was something about hush-money, trap-door, drinking-cups, honourable members slipping one after another into the aforesaid vaults, and not able to get out again without assistance, and, finally, that they were locked up; and in the course of time Bellamy opened, who still carries on a snug business. That the whole affair obtained the name of the Gunpowder Plot, through the train that was laid to get at the barrels and quench the spark which the dry orations of King James created in every throat. As to the story about burning, torturing, and so on, of course we knew better than to believe a word about the matter—well aware that in a Christian country, like England, such brutal scenes could never take place. Having thus settled these "Historic Doubts" to our satisfaction, of course



We knew no reason why gunpowder treason  
Should ever be forgot.

so at once commenced making a Guy, or sometimes stole one ready-made, which saved much trouble, for it was useless for the weaker party to offer resistance at a season when bon-fires, crackers, squibs, and powder in every form, were blazing and banging all over the country. It was a day dedicated to Invasion, and not a scarecrow could be found in the fields or gardens for miles around. Nor was this all: we established a committee of enquiry, days before this great annual firing, and they went round to see that all gates, fences, railings, posts, &c., were firmly secured, according to statute passed. They were entitled to bring away all that were loose, decayed, or broken, or could by any lawful means be torn off, up, or down. These were offered up at the shrine of Guy on the evening of the Fifth of November, and for this purpose were hoarded up in such places as the secret committee in their wisdom chose to appoint to be used for the "due observance of the day."

The best receipt we knew for making a Guy was, first to steal a coat—if nearly new, so much the better, it gave Guy a more respectable look. The village tailor was generally in the secret, and he so cut, altered, and trimmed it, after having cabbaged a waistcoat out of the skirts, that we could safely defy the original owner to swear to it again, even when it had undergone the most rigid examination. A pair of good leather breeches also formed a capital accompaniment to the above, and these we generally obtained by "hook or crook." Top-boots were then privity plentiful; and as the old shoemaker had generally five or six pairs on hand to repair, all round-toed, and as like as two cherries, it was difficult to discover whose were lost. Hats were plentiful as blackberries, as every high wind blew off one or two at the church corner, and the best was invariably selected. We just knew enough of the laws to understand that horses, waggon, &c., were in cases of emergency to be pressed into service in the King's name; and, under the same plea of loyal necessity, we stuck at nothing for the honour of our country, and the celebration of the Fifth of November. Pity 'tis, 'tis true, but sometimes a real living Guy has been detected in the fact of wearing the lost boots, unmentionables, &c., and been compelled to throw down his matches and lantern and run for it, and that our friends have been mulct of the full value aforesaid. But such mishaps rarely befall us.

Oh! what blazing and firing was there in those good old times: men drank and swore beautifully in those days, to prove their dislike to Popery; and what if a rocket now and then alighted upon a corn-rick, and burnt up a few scores of quarters of wheat, was it not a proof that in our very zeal we neither respected persons nor property? Then what good we did for trade, breaking every window that was not illuminated, without inquiring whether the indwellers were Catholics or Protestants!

It was one of those blessed days in which all loyal subjects who had allowed their nails to grow to a goodly length were expected to scratch, bite, shout, and blaze away at everything they came near. Alas! there are now "most biting laws" against the celebration of Guy Fawkes day. Into that very House which was all but blown up little more than two centuries ago, men of all sects and creeds are admitted; there is now no burning, no drawing, nor quartering in the name of religion; no traitors' heads grinning on London-bridge; no burning in the bars of Smithfield. Men seem to have lost that spirit of sweet savageness, and to have laid aside the charms of former cruelty. Poor Guy is himself doomed to be numbered amongst the things that were; and the time will come when the remembrance of Gunpowder Treason, and the martyrdom of Charles I., will not be found in our "Forms" of Prayer, nor be allowed to mingle with that holier incense which is alone worthy of ascending to Heaven. We shall then leave "the dead past to bury its dead," and destroy every trace of those old barriers that have so long separated man from his brother man.

As painters of the past, we have glanced at an old custom which is now fast sinking into desuetude, and which, excepting as an amusement for children, will ere long die away—a consummation devoutly to be wished.

But we must now turn to where

Autumn rends her yellow hair,  
And weeps the more that tears were vain to save;  
The sorrowful robin sings her requiem,  
And strews her hearth with all his favourite leaves;  
The sprightly lark somewhere in silence grieves  
And will not chant his wonted matin hymn;  
And Nature, her proud mother, mourns her child  
With that unutter'd grief which is not soon beguiled.—WEBBE.

Although the close of autumn is somehow associated with the images of decay and death, there are fitful and cheerful glimmerings thrown around, "like hope upon a death-bed;" and we feel that this natural destruction of the remains of the beautiful summer is necessary for the production of another and a fairer spring. There is also something pleasant in the appearance of the well-filled rick-yards and barns; and we seem armed against the coming winter when we look upon the stores that have been gathered from field, orchard, and garden, and garnered against the time when "the wind and rain beat dark December." Nor do we seem to care so much to see the leaves rotting and the long grass withering, and the low leaden-coloured sky ever raining, in these busy autumnal days, as we should in the almost nightless season of summer; the lengthened darkness brings with it the very necessity that confines us within doors.

There is something very beautiful about the great high heath-covered hills in autumn, that come dipping down with crimson-clad feet into the open valleys. Scott used to say that he could never live unless he set his foot upon the heath once a year; and we know few spots that retain their dry elasticity so long as those on which the heath-bell waves; for, when all besides is saturated with moisture and decay, these are comparatively dry. Some such spot we once knew that ran high above the surrounding woods; for, saving one narrow field-like entrance, woods encircled it every way. It had never been cultivated within the memory of man, nor probably ever had been. When the ling and heather had withered on the more open hills, here it remained as fresh as if it had but just bloomed; and even when December began to draw the curtain upon the close of the year, we have still found it as fresh as it seemed to have been in other places a month or two before.

The following humorous description of autumn was written between two and three hundred years ago, but by whom we know not, though we think it is attributed to Decker:—"Autumn's the barber of the year, that shears bushes, hedges, and trees; the ragged prodigal, that consumes all and leaves himself nothing; the arrantest beggar amongst all the four quarters; and never well, but always troubled with the falling sickness. This murderer of Spring, this thief to Summer, and bad companion to Winter, seems to come in according to his old custom, when the sun sets, like Justice, with a pair of scales in his band, weighing no more hours to the day than he does to the night, as he did before in his vernal progress, when he rode on a ram. But this bald-pated Autumn will be seen walking up and down groves, meadows, fields, parks, and pastures, blasting of fruits, and beating leaves from their trees. When common highways shall be strewn with boughs in mockery of Summer and in triumph of her death."

The resemblance the seasons bear to life, death, and resurrection, have not escaped the eyes of our old poets. They ever compared spring to youth; the

blowing and blossoming of the buds and flowers to the promises of future manhood, the fruits which the full Summer would bring forth and ripen. Autumn, which brought perfection, was also the forerunner of dissolution; the same which caused the rose to shed its beauty as soon as it was attained, for such was ever Nature's course. Winter was that sleep in the grave which awoke to life in another spring, whose flowers were eternal, and where there was neither death nor change again. Even so far back as the days of Homer, we find the decay of autumn suggesting these very images, nor have we in any way been able to improve upon them. Shelley seems to have felt this when he said:—

Oh! wild West Wind! thou breath of Autumn's being—  
Thou, from whose unseen presence the leaves dead—  
Are driven, like ghosts from an enchanter fleeing,  
Yellow, and black, and pale, and hectic red—  
Pestilence-stricken multitudes. Oh! thou  
Who chariotest to their dark and wintry bed  
The winged seeds, where they lie cold and low,  
Each like a corpse within its grave, until  
Thine azure sister of the spring shall blow  
Her clarion o'er the dreaming earth, and fill  
(Driving sweet buds, like flocks, to feed in air)  
With living hues and odours plain and hill!  
Make me thy lyre, even as the forest is:  
What if my leaves are falling like its own:  
The tumult of the mighty harmonies  
Will take from both a deep autumnal love,  
Sweet though in sadness! Be thou spirit-fierce,  
My spirit, be thou me, impetuous one!  
Drive my dead thoughts over the universe,  
Like wither'd leaves, to quicken a new birth.

How wild and solemn must have been the autumns in our primitive old English forests, three or four thousand years ago! when there was no human voice to cheer the solitude; but, according to the earliest records we possess, nothing but bears, wolves, and the oxen with the high prominence. The badger is another of that ancient family, which has outlived the mammoth and the mastodon; for we find his fossil remains side by side with these huge and extinct monsters. He is the only representative of our cave bear, and seems not to have bated a jot of bruin's valour. It appears that in the present day the badgers migrate from one part to another in large companies, sometimes numbering from ten to seventeen; that they move along in the night, rank and file, in seemingly and marching order, placing their young ones in the centre. In one or two instances, when they have been confronted, both man and dog were compelled to beat a retreat.

The favourite haunt of the badger is the gloomy centre of a wood, or that part where the thicket is impassable; possessing long powerful claws, he there digs for himself a deep den, forming a somewhat winding and intricate entrance, into which he works his long hardy body, not caring a straw for rubbing his coarse skin against the outer brambles or rugged sides of his subterranean dwelling, so long as he has but plenty of room to turn himself when he reaches his inner chamber. Here he couches all day long, and never ventures out to feed until late in the evening, or late in the night. Though dull, heavy, and lazy, it is, upon the whole, a harmless brute, doing no injury to any one, but feeding upon roots, pig-nuts, acorns, beech-mast, and occasionally a long-tailed mouse or two, or even a few frogs or insects when nothing better may be had. Some naturalists assert that he is a great destroyer of wasps'-nests, and feeds upon the larvae. He is, beyond doubt, the strongest jawed animal of his size in Britain, and, even when baited by half-a-dozen dogs, if he once chances to get fairly hold, we be to the assailant. When taken young he is said to be easily tamed, and to become as attached and affectionate as a dog; ready, also, to follow his master anywhere. Glad we are that the cruel custom of badger-baiting is now abandoned. Almost every inn-yard in the country had, a few years ago, its badger-tub, or box, in which dog and badger were mutually tortured, the dog which seized the badger the oftenest, and still retained his hold each time he went in until he was drawn forth by the tail, when the badger was made to release its hold, and the dog again sent in, according to its "bottom," was the winner. The method used for capturing the badger is by placing an open sack, with a running noose, in the earth where he harbours. This is done while he is out feeding. When all is prepared, a loud hooting and whistling is made, and half a dozen dogs are also turned loose. The badger, alarmed, hurries off home, rushes into the sack that closes behind him, and is regularly "sacked."







M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.					MOON.				DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE		Day of the Year.				
			Souths.					SOUTH.				Before Sunrise.		After Sunset.		Morning.	Afternoon					
			Rises.	Before 12 o'clock.		Height above Horizon.	Sets.	Rises. Afternoon	Morning.	Height above Horizon.	Sets. Morning.	O'Clock. 2h. 4h. 6h.	Moon's Age.	O'Clock. 6h. 8h. 10h.								
1	S	Fomalhaut souths at 6h. 7m. P.M.	7	46	10	41	16 $\frac{3}{4}$	3	52	5	47	0	45	57 $\frac{1}{4}$	8	43		2	25	2	45	335
2	S	1st S. in ADVT.	7	47	10	18	16 $\frac{3}{4}$	3	52	6	50	1	47	56 $\frac{1}{2}$	9	47		3	10	3	30	336
3	M	Alpha Andromedæ souths at 7h. 9m. P.M.	7	48	9	54	16 $\frac{3}{4}$	3	51	7	58	2	49	54 $\frac{1}{2}$	10	42		3	55	4	20	337
4	Tu	Alpha Pegasi souths 7h 10m P.M.	7	49	9	30	16 $\frac{3}{4}$	3	51	9	15	3	49	51 $\frac{1}{2}$	11	27		4	45	5	10	338
5	W	Polaris souths 8h 6m P.M.	7	51	9	5	16 $\frac{3}{4}$	3	51	10	30	4	45	47 $\frac{1}{2}$	Afternoon			5	35	6	5	339
6	Th	Nicholas	7	52	8	40	16	3	51	11	43	5	37	43 $\frac{1}{2}$	0 30			6	30	7	0	340
7	F	Alpha Arietis souths 8h 5m P.M.	7	53	8	14	16	3	50	Morning.	6	27	38 $\frac{3}{4}$	0 58			7	30	8	0	341	
8	S	Con. of B.V. Mary	7	55	7	47	15 $\frac{3}{4}$	3	50	0	54	7	14	34 $\frac{1}{2}$	1 23			8	40	9	15	342
9	S	2d S. in ADVENT	7	56	7	21	15 $\frac{3}{4}$	3	50	2	2	7	59	30	1 45			9	50	10	25	343
10	M	Grouse sh. ends	7	57	6	53	15 $\frac{3}{4}$	3	49	3	10	8	45	26 $\frac{1}{2}$	2 9			11	0	11	30	344
11	Tu	Terrible slaughter	7	58	6	26	15 $\frac{3}{4}$	3	49	4	16	9	30	23 $\frac{1}{2}$	2 35			At Noon.	No Tide.			345
12	W	of British troops in Af- ghanistan, 17,000 lives lost, 1842	7	59	5	57	15 $\frac{3}{4}$	3	49	5	20	10	15	20 $\frac{1}{2}$	3 4			0	24	0	47	346
13	Th	Lucy	8	0	5	29	15 $\frac{3}{4}$	3	49	6	22	11	2	19	3 37			1	8	1	30	347
14	F	Aldebaran souths 10h. 53m. P.M.	8	0	5	0	15 $\frac{3}{4}$	3	49	7	21	11	48	—	4 14			1	48	2	7	348
15	S	[Cambridge Term ends.	8	1	4	31	15 $\frac{3}{4}$	3	49	8	15	Afternoon	18	4 58			2	25	2	45	349	
16	S	3d S. in ADVENT	8	2	4	2	15 $\frac{3}{4}$	3	49	9	2	1	24	18 $\frac{1}{2}$	5 47			3	0	3	18	350
17	M	Oxford T. ends	8	3	3	32	15 $\frac{3}{4}$	3	49	9	45	2	12	19 $\frac{1}{2}$	6 42			3	35	3	50	351
18	Tu	Capella souths 11h 15m P.M.	8	4	3	3	15	3	50	10	11	2	58	21	7 40			4	7	4	25	352
19	W	Ember Week	8	5	2	33	15	3	50	10	53	3	44	23 $\frac{1}{2}$	8 42			4	40	5	0	353
20	Th	Regulus souths 11h. 9m. P.M.	8	5	2	3	15	3	51	11	21	4	30	26 $\frac{3}{4}$	9 47			5	15	5	36	354
21	F	St. Thomas. Win- ter commences	8	6	1	33	15	3	51	11	47	5	15	30 $\frac{1}{2}$	10 52			5	55	6	15	355
22	S		8	6	1	3	15	3	51	Afternoon	6	0	35	11 59			6	40	7	0	356	
23	S	4TH S. in ADVENT	8	6	0	33	15	3	52	0	34	6	47	39 $\frac{1}{2}$	Morning.			7	30	8	0	357
24	M	Christmas Eve	8	7	0	3	15	3	52	1	0	7	36	44	1 12			8	30	9	10	358
25	Tu	CHRISTMAS DAY	8	7	After 12 o'clock	57	15 $\frac{1}{4}$	3	53	1	27	8	27	48 $\frac{1}{2}$	2 24			9	40	10	15	359
26	W	St. Stephen	8	7	0	57	15 $\frac{1}{4}$	3	53	1	59	9	23	52 $\frac{1}{2}$	3 40			10	50	11	25	360
27	Th	St. John	8	8	1	26	15 $\frac{1}{4}$	3	54	2	38	10	22	55 $\frac{1}{2}$	4 59			11	55	No Tide.		361
28	F	Innocents	8	8	1	56	15 $\frac{1}{4}$	3	55	3	26	11	24	57	6 15			0	20	0	47	362
29	S	Thomas à Beckett	8	9	2	25	15 $\frac{1}{4}$	3	56	4	25	Morning	57 $\frac{1}{2}$	7 25			1	15	1	40	363	
30	S	killed, 1171	8	9	2	54	15 $\frac{1}{4}$	3	57	5	33	0	28	55 $\frac{3}{4}$	8 29			2	5	2	30	364
31	M	Silvester	8	9	3	23	15 $\frac{1}{2}$	3	58	6	48	1	31	53 $\frac{1}{2}$	9 21			3	0	3	25	365



## DECEMBER.

THE SUN is in the sign Sagittarius till the 21st, at 9h. 42m., at which time he enters the sign Capricornus (the Goat), and Winter commences. On the 1st he is 93,628,000 miles from the Earth.

He rises, on the 1st, at  $1^{\circ} \frac{1}{2}$  S. of S.E. by E.; on the 11th, at  $3^{\circ} \frac{1}{2}$ ; on the 21st, at  $4^{\circ}$ ; and on the 31st, at  $3^{\circ} \frac{1}{2}$  S. of the same point of the horizon. He sets on the same days respectively at  $1^{\circ} \frac{1}{2}$ , at  $3^{\circ} \frac{1}{2}$ , at  $4^{\circ}$ , and at  $3^{\circ} \frac{1}{2}$  S. of the S.W. by W. points of the horizon. His time of southing, in common clock time, and his height in degrees at the same time, are given for every day on the opposite page.

The MOON is in the constellation Gemini on the 1st and 2nd; in Cancer, on the 3rd and 4th; in Leo, on the 5th and 6th; in Virgo, from the 7th to the 10th; in Libra, on the 11th and 12th; in Ophiuchus, on the 13th and 14th; in Sagittarius, on the 15th, 16th, and 17th; in Capricornus, on the 18th; in Aquarius, on the 19th, 20th, and 21st; in Pisces and Cetus alternately, till the 25th; in Taurus, on the 26th, 27th, and 28th; in Gemini, on the 29th and 30th; and in Cancer, on the 31st.

She rises during the night till the 14th; during the day, from the 15th to the 28th; and after the Sun sets, on the 29th, 30th, and 31st. She sets during the day till the 16th; during the night, from the 17th to the 29th; and shortly after sunrise, on the 30th and 31st.

She is on the Equator on the 8th and on the 23rd. Her time of southing, in common clock time, and her height in degrees at the same time, are given for every day on the opposite page.

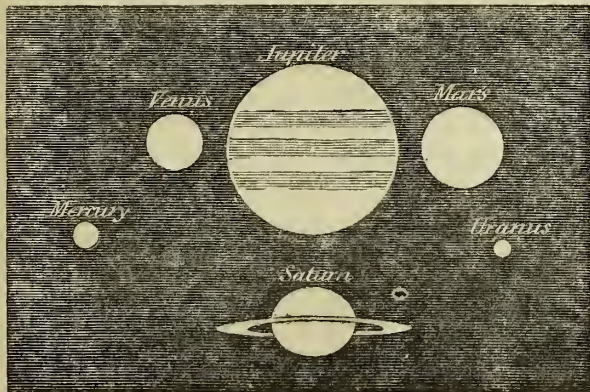
She is near Mars on the 1st; Jupiter, on the 7th; Venus, on the 12th; Mercury, on the 14th; Saturn, on the 22nd; Uranus, on the 24th; and Mars, on the 28th.

She is new on the 14th, and full on the 29th; but without an Eclipse at both times.

MERCURY is in the constellation Libra on the 1st; he is moving on the boundaries of those of Scorpio and Ophiuchus, from the 2nd to the 14th; and in that of Sagittarius from the 15th to the end of the year.

He is a morning star at the beginning, and an evening star towards the end of the month. He rises on the 1st at 56m., and on the 15th at 1m., before the Sun rises. He sets on the 16th at 2m., and on the 31st at 40m., after the Sun sets. He is generally unfavourably situated during the month for observation. He rises on the 4th at the S.E. by E.; and he sets on the last day at  $5^{\circ} \frac{1}{2}$  S. of S.W. by W. points of the horizon. He is moving eastward among the stars throughout the month; and is near the Moon on the 14th, and is in superior conjunction with the Sun on the 19th.

## RELATIVE TELESCOPIC APPEARANCES OF THE PLANETS, IN DECEMBER, 1849.



Scale, 40 seconds of arc to one inch.

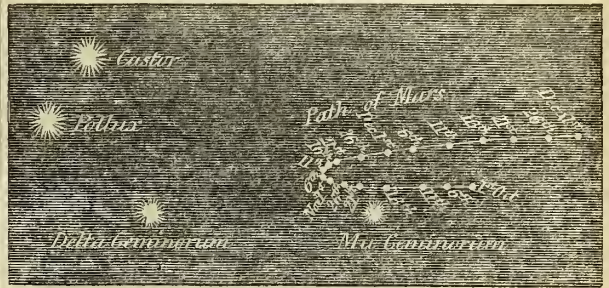
VENUS is in the constellation Libra till the 10th; in that of Scorpio, from the 11th to the 14th; and in that of Ophiuchus, from the 15th.

She is a morning star throughout the month; and rises at 5h. 37m. A.M., on the 1st; and at 7h. 3m. A.M., on the 31st; at  $2^{\circ} \frac{1}{2}$  S. of E.S.E., on the 1st; at the S.E. by E., on the 18th; and at  $3^{\circ} \frac{1}{2}$  S. of S.E. by E., on the 31st. She is moving eastward among the stars throughout the month; and is near the Moon on the 12th. Her telescopic appearance towards the end of the month is small, and almost circular, as is shewn in the preceding cut.

Mars is in the constellation Gemini till the 10th; and in that of Taurus, from the 11th to the end of the month.

He is visible throughout the night; and rises, on the 1st, at 4h. 59m. P.M.; and on the last day, at 2h. 1m. P.M.; at  $7^{\circ} \frac{1}{2}$  N. of N.E. by N. on the 1st, and at  $8^{\circ} \frac{1}{2}$  N. of N.E. by N. on the last day. His times of southing are given below; and his altitude above the horizon when he souths, on the 1st, is  $64^{\circ} \frac{1}{2}$ , and on the last day is  $65^{\circ}$ . He sets towards the end of the month as the Sun rises. He is moving westward among the stars (as shewn in the annexed diagram); and is near the Moon on the 1st and 28th. He is in opposition to the Sun on the 18th.

PATH OF MARS, DURING THE MONTHS OF OCTOBER, NOVEMBER, AND DECEMBER, 1849.

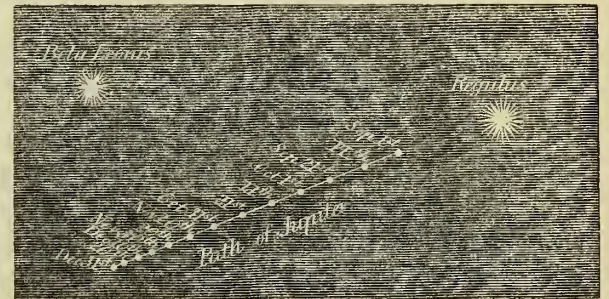


Scale, 12 degrees to one inch.

JUPITER is in the constellation Virgo throughout the month.

He is a morning star; rises at 0h. 24m. A.M., on the 1st, at  $4^{\circ}$  S. of E. by N.; and on the last day, at 10h. 34m. P.M., at  $5^{\circ}$  S. of E. by N. Souths at  $43^{\circ} \frac{1}{2}$  on the 1st, decreasing to  $42^{\circ} \frac{1}{2}$  on the last day; and sets at about noon. He is moving eastward among the stars throughout the month, but is almost stationary among them towards the end of the month, as is shewn in the annexed diagram, shewing his path in the heavens during the months of October, November, and December; and it will be seen that his motion is directly from Regulus to a point situated  $12^{\circ}$  S. of Beta Leonis. He is near the Moon on the 7th.

PATH OF JUPITER, IN THE MONTHS OF SEPTEMBER, OCTOBER, NOVEMBER, AND DECEMBER, 1849.



Scale, 12 degrees to one inch.

JUPITER'S SATELLITES.—The Immersions of the 1st take place at the distance of one-half, and those of the 2nd at that of one diameter from the Planet, to the right as seen through a non-inverting telescope, and to the left as seen through an inverting telescope.

SATURN is in the constellation Cetus throughout the month. He is an evening star; souths at an altitude of  $40^{\circ}$  nearly on every day; and sets at a point a little S. of W., at 1h. 20m. A.M., on the 1st; at 0h. 27m. P.M., on the 15th; and at 1h. 27m. P.M., on the last day. He is nearly stationary among the stars during the month, and is near the Moon on the 22nd.

URANUS souths on the 15th, at 7h. 47m. P.M., at an altitude of  $47^{\circ}$  nearly on every day. He sets, on the 1st, at 3h. 33m. A.M.; and on the last day, at 1h. 32m. A.M. He is nearly stationary among the stars, and is near the Moon on the 31st.

## TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.

Days of the Month.	Mercury.		Venus.		Mars.		Jupiter.		Saturn.	
	Morning.	Evening.	Morning.	Evening.	Morning.	Evening.	Morning.	Evening.	Morning.	Evening.
1	11 8	10 20	1 33	6 48	7 26					
6	11 21	10 25	1 5	6 31	7 7					
11	11 34	10 31	0 38	6 13	6 47					
16	11 49	10 38	0 10	5 55	6 28					
21	Aftern.	10 44	Aftern.	5 36	6 8					
26	0 19	10 51	11 8	5 17	5 49					
31	0 35	10 59	10 41	4 58	5 31					

## JUPITER'S SATELLITES.

Eclipses of									
1st Sat.					2nd Sat.				
Immersion.					Immersion.				
D.	H.	M.			D.	H.	M.		
4	5	37	A. M.		9	1	9	A. M.	
13	1	58	A. M.		16	3	43	A. M.	
20	3	51	A. M.		23	6	17	A. M.	
27	5	44	A. M.						
29	0	13	A. M.						

## OCCULTATIONS OF STARS BY THE MOON.

Names of the Stars.	Magnitude.	Times of disappearance and re-appearance of the Stars.				At the dark or bright limb of the Moon.
		D.	H.	M.		
Rho Leonis	4	5	10	40	P. M.	Bright
		5	11	34	P. M.	Dark
33 Ceti	6	23	11	51	P. M.	Dark
		23	11	23	P. M.	Bright
		25	4	4	P. M.	Dark
A star in Arietis	4	25	4	46	P. M.	Bright
		30	5	58	P. M.	Bright
3 Cancri	6	30	6	48	P. M.	Dark

## TIMES OF CHANGES OF THE MOON.

And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

	LAST QUARTER	NEW MOON	FIRST QUARTER	FULL MOON	PERIGEE	APOGEE	PERIGEE
..	11 8	14 3	22 7	29 2	1 4	16 6	29 4
	10 20	38 P. M.	40 P. M.	0 P. M.	0 A. M.	0 A. M.	0 P. M.

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.	
	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	Right Ascension	Declination North.
1	15h. 49m.	19° 40'	15h. 1m.	17° 30'	6h. 11m.	25° 49'	11h. 29m.	4° 38'	0h. 8m.	1° 50'	1h. 25m.	8° 18'
6	16 21	21 44	15 26	15 30	6 4	26 4	11 30	4 27	0 8	1 49	1 25	8 15
11	16 55	23 21	15 52	19 6	5 55	26 17	11 32	4 17	0 8	1 47	1 24	8 13
16	17 29	24 29	16 18	20 29	5 47	26 26	11 34	4 9	0 9	1 44	1 24	8 12
21	18 3	25 5	16 44	21 37	5 38	26 30	11 35	4 3	0 9	1 39	1 24	8 11
26	18 39	25 6	17 11	22 29	5 30	26 32	11 36	3 59	0 10	1 34	1 24	8 10
31	19 14	24 29	17 38	23 5	5 22	26 30	11 36	3 57	0 11	1 28	1 24	8 10



DECEMBER.—CHRISTMAS WAITS.



Good Christians, rise; this is the morn  
When Christ, the Saviour, He was born;  
All in a stable so lowly,  
At Bethlehem, in Galilee,  
Rejoice! our Saviour He was born  
On Christmas-day in the morning—*Old Christmas Carol.*

HUSH! hush! Those are the village waits, not your noisy musicians, whose clamour arouses a whole neighbourhood, but those who bring no other instruments excepting their voices—who go from hamlet to hamlet all night long, chanting such carols as our pious forefathers loved to listen to in those good old days when Christmas was not only a holiday, but a holy time. Let us uplift the corner of the white blind gently. Although they hope that all are listening, they would but feel uneasy to know that they were overlooked. We shall be very glad to see them on hoxing-day, when they will come round and simply announce themselves as the waits; then we can reward them for the pleasure they have afforded us. A few old-fashioned doors will be opened, where they will be cheered with elder wine, spiced ale, and plum cake; they know the houses. There are those who make a point of sitting up to receive them; cold although the night may be, they will not lack bodily comfort. How sweetly the moonlight sleeps upon the untrodden snow; it kept falling until twelve o'clock; and then the queen of the stars came out adorned with more than her usual brilliancy. It is just such a Christmas morning as a lover of old customs would crave for—cold, frosty, and bright. How the snow will “crunch” beneath the feet

at daylight! But they are gone; you can just hear their voices at intervals, sounding faintly over the snow, when the red cock that crows from the far-off farm is silent, for they are now singing at the lonely grange beside the wood. The old farmer who resides there would never fancy that it was Christmas unless he heard the waits. Rumour, who is a slanderer, does say that when they have left his old-fashioned parlour they never again sing in tune—that bass is heard in place of tenor, and treble gets over his part before the others have well begun—and that, when complaints are made the next morning, the only answer is, “Christmas comes but once a year.”

Then comes the church service in the morning; nobody either thinks or cares about the sermon on that day—all feel good enough without it. No! their thoughts are with the friends they hope to meet; they need no other sermon than the snow which lies on the graves of those who are still dear to them in memory—the dead, who, perhaps, only the year before, were guests at the Christmas hoard—those whom

The breezy call of incense-breathing morn,  
The swallow twittering from the straw-built shed,



The cock's shrill clarion, or the echoing horn,  
No more shall rouse them from their lowly bed.

For them no more the blazing hearth shall burn,  
Or busy housewife ply her evening care;  
No children run to slip their shoes at morn,  
Or climb his knees the envied kiss to share.

In vain are the beloved portraits decorated with bolly and ivy: the same calm faces look down upon the Christmas festival, but the eyes no longer brighten, neither do the lips move, nor will the merry laugh that rung like music over the scene ever more be heard.

High up the vapours fold and swim,  
Above him floats the twilight dim,  
The place he knew forgot to him.—TENNYSON.

They mistake Christmas who state that it is a merry day; on the contrary, a Christmas dinner is more often a solemn assemblage of those who live, and whose thoughts are occupied with those who have departed. In England, with but few exceptions, it seldom consists of more than members of the family. If a friend drops in it is generally one who has no other friends to meet; or if he has, they lie too far and wide away for him to visit them. It is a time when grandchildren and grandfathers and grandmothers meet together; when old times and old scenes are recalled; when the hidden household gods are brought forth; and the young bride, often for the first time, meets the family of which she is now a member; when old crusty men, who after much persuasion have at last agreed to attend, shovel off the cold crust from their hearts, as the good old port comforts them, go home, and alter their will, and sleep more comfortably after it than they have ever done for years before; when hands which have never been clasped for many a long day lie enfolded within each other, and marvel however they came to be separated. No! Christmas is not a merry season; it makes a man think of how few such days he can remember, and how few more he can hope to see. He begins to think that a brief year of days spent so happily, dating from the time he first slept an infant in the cradle, and but kept up once a week, would tell him that he had lived beyond half a century; and he feels no wish to number as many more, although he knows that

In the grave there is no company.

"From the first introduction of Christianity into these islands," says the Book of Christmas, "the period of the Nativity seems to have been kept as a season of festival, and its observance recognised as a matter of state. The Witenagets of our Saxon ancestors were held under the solemn sanction and beneficent influence of the time; and the series of high festivities established by the Anglo-Saxon kings appear to have been continued with yearly increasing splendour and multiplied ceremonies under the monarchs of the Norman race. From the Court the spirit of revelry descended, by all its thousand arteries, throughout the universal frame of society, visiting its farthest extremities and most obscure recesses, and everywhere exhibiting its action, as by so many pulses, upon the traditions, and superstitions, and customs which were common to all or peculiar to each. The pomp and ceremonial of the Royal observance were imitated in the splendid establishments of the more wealthy nobles, and far more faintly reflected from the diminished state of the petty baron. The revelries of the baronial castle found echoes in the hall of the old manor-house, and these were again repeated in the tapestried chamber of the country magistrate, or from the sanded parlour of the village inn: merriment was everywhere a matter of public concernment, and the spirit which assembles men in families now congregated them by districts then."

Such, indeed, was the merry Christmas of the olden time. The whole wide country was then filled with rejoicing: in the bannered hall the long tables were spread: on the ancient armour and the antlers of the wild deer, holly, and ivy, and mistletoe were placed; the huge yule log went roaring up the wide old-fashioned chimneys, and cold although it might be without, all was warm and comfortable within. The large wassail-bowl—a load of itself when full—was passed round, and each one before he drank, stirred up the rich spices with a sprig of rosemary, while the cooks (says an old writer) "looked as black and greasy as a Welsh porridge-pot." Roast goose and roast beef, minced pies, the famous boar's head, plum porridge, and plum pudding, together with no end of sausages, and drinks of every description, but, chief of all, the "bowl of lamb's wool," seemed to have formed the staple luxuries of an old Christmas dinner. But even more than two hundred years ago the cry was raised, "Is old, good old Christmas gone?—nothing but the hair of his good, grave, old head and beard left!"

Were I to paint a December day, such as I wandered out in last year (1847), it would read more like a description of spring than winter. The sky was intensely blue, and the sun shone with a summer brightness. The wide Downs which lie to the left of Sanderstead seemed to bask in the sunlight of May. On either hand, between the woods, the holly and ivy hung aloft in the richest green, while hips and haws glittered in the hedgerows in thousands, like beads of the brightest coral. The woodlark (which, it is well known, sings nearly the whole of the year, and is only silent in June and July), and the robin were singing as cheerfully as if it were a fine day in February; and, unless my ear deceived me, I caught the notes of the thrush. The day was, indeed, so beautiful that I could not resist the temptation of venturing into the wood, for there was a dryness about the fallen leaves such as I had but rarely seen in winter. Wandering onward, I arrived at a little dell. One side was in shade; on the other the golden sunshine slept. Strange, there was also a rich yellow light on the shady side of the dell. On a nearer approach, I saw hundreds of primrose in full flower. Pale and beautiful, there they stood, throwing a sweet fragrance all around; the new green leaves and the old ones, brown and decayed, all adhering to the same root. Such a discovery would have been a little fortune to a London flower-seller; and had they been dug up by the roots, and offered for sale in Cheapside (which is not more than twelve miles from Sanderstead), no doubt the whole dell-full might have been disposed of in one day, for it was just upon the verge of Christmas.

At no season of the year is the hare in better condition than now. He has got over his full autumn feeding, and there is a firmness about the flesh which will be lost after January. Hare hunting takes the precedence of the fox chase. It was followed by the ancients, and we have a description of it by Xenophon, long before the Christian era. By many it is also considered to afford more true hunting than the fox chase. The hare is no sooner found than it starts off and makes a circle; and as the scent is very weak until the hare is warmed, the harriers are often at fault, and driven over, and sometimes run backward instead of forward, hunting, as it is termed, "heel-ways." The hare should never be pressed upon too closely when first found, nor should the hounds be followed too near, as they sometimes turn back to regain the lost scent. Besides, by remaining behind, the motions of the hare can be better observed at a reasonable distance, and all her foils and doubles detected. It is wonderful what doubles the hare will sometimes make, when the scent has become warm: instances are on record of her feats on a dry road, when, having run all sorts of intricate ways, she will at last make a clear spring several feet from the spot, which occasions

many a fault; and while the harriers are beating widely about, or are far ahead, she will lie motionless in the very spot where she at one spring threw herself until the hounds have passed, when she will return again to her old starting point. When the hare begins to make more contracted circles, it is a sure proof that the hunt is pretty well over, for it is sure to come soon within the "spread of the pack," and it will not then be long before her death-cry is heard. Although the hare sleeps, the eyes are never closed: it is the same with fishes—they also sleep with the eyes open.

The following description of winter, written about three hundred years ago, will be new to thousands of our readers; it was written by a good old Scotch bishop, named Gavin Douglas, and first rendered familiar to English readers by the poet Warton, to whom we are indebted for the following beautiful modern version:—"The fern withered on the miry fallows; the brown moors assumed a barren mossy hue; banks, sides of hills, and bottoms, grew white and bare; the cattle looked hoary from the dank weather; the wind made the red reed waver on the dyke. From the crags and the foreheads of the yellow rock hung great icicles, in length like a spear. The soil was dusky and grey, bereft of flowers, herbs, and grass; in every holt and forest the woods were stripped of their array. Boreas blew his bugle-horn so loud that the solitary deer withdrew to the dales; the small birds flocked to the thick briars, shunning the tempestuous blast, and changing their loud notes to chirping; the cataraets roared, and every linden tree whistled and bowed to the sounding wind. The poor labourers, wet and weary, dragged in the fen, the sheep and shepherds lurked under the hanging banks or wild broom. Warm from the chimney side, and refreshed with generous cheer, I stole to my bed, and lay down to sleep, when I saw the moon shed through the window her twinkling glances and wintry light; I heard the horned bird, the night-owl, shrieking horribly with crooked bill from her cavern; I heard the wild geese, with screaming cries, fly over the city through the silent night. I was now lulled to sleep, till the cock, clapping his wings, crowed thrice, and the day peeped. I waked and saw the moon disappear, and heard the jackdaws cackle on the roof of the house. The cranes, prognosticating tempests, in a firm phalanx pierced the air, with voices sounding like a trumpet. The kite, perched in an old tree fast by my chamber, cried lamentably, a sign of the dawning day. I rose, and half opening my window, perceived the morning, livid, wan, and hoary; the air overwhelmed with vapour and cloud; the ground, stiff, grey, and rough; the branches rustling; the sides of the hills looking black and hard with the driving blasts; the dew-drops congealed on the stubble and rind of trees; the sharp hailstones, deadly cold, and hopping on the thatch." We know no description of winter so beautiful as the above; nearly every word is a picture, every epithet is well chosen, and the whole as fine a piece of word-painting as ever appeared in descriptive poetry.

We have again arrived at the close of another year, and in our journey through it have glanced at many of the old manners and customs which are fast fading away. The railroads, that have cut up the ancient highways of England, will soon uproot the few rude and rural customs that remain: the rapid interchange will revolutionise the habits of our simple villagers, and they will become ashamed of following the ancient amusements, which for centuries have been the delight of their ancestors. As for ourselves, we seem to have lived on the verge of important changes. We have with our own eyes beheld the old May-games, harvest home, sheep-hearing feasts, wakes, statutes, Plough-Mondays, Palm-Sundays, and other ancient festivals and ceremonies, as they have no doubt existed for at least three or four centuries. We have also been dragged at the rate of two or three miles an hour in the creeping market-boat and heavy stage-wagon, and been waited fifty miles in the same space of time in an express train. We can also just remember when a steam-boat was a marvel, and the banks of the river were lined for miles with wondering spectators. What changes another generation may witness, the future can alone unravel; if they keep pace with those that have marked the last memorable quarter of a century, scarcely a feature of the England which we have here depicted will remain. All the wonders of the "Arabian Nights" sink into insignificance beside our iron roads and electric telegraphs. As for Puck's exploit in the "Midsummer Night's Dream," of "putting a girdle round about the earth in forty minutes," we shall ere long be able to send a message around the same circle in less time than the fairy boasted of.



(The Descriptions of the Twelve Months are from the pen of Thomas Miller.)



## ASTRONOMICAL PHENOMENA.

(Continued from August.)

greater at some oppositions than at others. If the orbits of Mars and the Earth were perfect circles, the distance between the two Planets at every opposition would be the same; but, owing to the elliptic figure of the orbits, a considerable variation in this distance takes place. The least distance possible between the Earth and Mars is when the opposition of Mars occurs at the time when the Earth is farthest from the Sun, and Mars the nearest to the Sun. At the time of opposition this year, on December 17, the Sun and the Earth are almost at their least distance from each other, and therefore the Planet will not appear in his greatest splendour. At the opposition in the year 1830, and that in 1845, the Planet approached nearer to the Earth than it will do again till the year 1860. At the opposition of Mars in 1830, the Planet's surface was watched by Dr. Maedlar, the Director of the Imperial Observatory, at Dorpat, Russia, and it was published in "Schumacher's Journal," that all times there was seen at the South Pole, with great distinctness, a white, glittering, well-defined space, which has been called the "Snowy Zone." During the examination, several spots were seen. At the opposition in the year 1845, the surface of the Planet Mars was examined at the Royal Observatory, Greenwich; and the following is extracted from the Greenwich Astronomical Observations for the year 1845:—

"August 22nd, 11h.—The night was very fine; and Mars being very nearly at the point of nearest approach to the Earth, the opportunity was taken to endeavour to obtain a delineation of his surface. Drawings of his appearance were made by the Astronomer Royal and by Mr. Main; and the following verbal description was added by the latter:—"About 10° to the apparent west of the apparent north point of the border of the Planet, there was a dazzling bright cap, which was contrasted very strongly by a dark zone immediately beneath it. A little below this shaded band a streak appeared, brighter than the parts above and below it, and of pretty nearly the same brightness as the borders of the Planet. The most remarkable dark spot on the disk was to the apparent left of the general dark mass which occupied a considerable portion of the upper surface; and there was also a dark spot on the right, quite clear of the general dark surface. It would seem as if an immense mountain range extended from one spot, across the dark surface, to the other spot; for the whole of the surface contiguous to the line joining the spots was very much mottled. On a minute examination, it appeared to me that the lower boundary of the darkened surface was in general form similar to a small circle of the sphere rather to the left of the centre of the Planet. It is probable that, with a more powerful telescope, some of these details would appear essentially different; for it was found very difficult to see the surface of the Planet with sufficient distinctness to record even the vague description which has been given." Mr. Glaisher undertook to watch the Planet at intervals during the night, for the purpose of observing whether the dark spots shifted their position appreciably. The image was too unsteady and undefined during his watch to determine this point satisfactorily; but his impression was that the whole dark mass on the surface moved towards the left."

"August 29th, 11h.—The Planet was again watched by Mr. Main; and a sketch was made, differing in every particular (except in the appearance of the bright cap) from that made on August 22nd. The most remarkable appearance to be recorded verbally was, that between two dark horus or cusps, which terminated right and left the lower part of the darkened surface, the colour was of a singularly red tint, more nearly resembling rich red earth than anything else with which the observer could compare it. The dark part had a very faint blue tint."

The snowy zone of the South Pole of Mars has been generally noted by most observers at his opposition; and at several of these times dark spots have been seen upon the Planet, by observation of which the time of rotation of the Planet on its axis has been determined to be about 24h. 37m. 23s.

Mars will be most favourably situated for observations of this kind during the months of November and December of the present year. He will be finely located for examination, being high in the heavens, at midnight; he may be readily distinguished, by means of the diagrams given of his path in the heavens, by the redness of his colour, and by his occupying a situation almost midway between the stars Castor and Pollux and the Pleiades, moving from the former towards the latter.

## ON THE RECENTLY-DISCOVERED PLANETS.

TILL the discovery of Uranus, by Sir William Herschel, in the year 1781, six Planets only were known; viz. Mercury, Venus, the Earth, Mars, Jupiter, and Saturn. Kepler, from some analogy which he found to subsist among the distances of the Planets from the Sun, had suspected the existence of one situated between the orbits of Mars and Jupiter. The discovery of Uranus, occupying an orbit confirmatory to the analogy of distance before referred to, impressed Astronomers very firmly with the belief that a Planet would be found between Mars and Jupiter. The interval between the orbits of Mercury and Venus is about 31,000,000 of miles; between those of Venus and the Earth, 27,000,000; and between those of the Earth and Mars, 51,000,000.\* But between the orbits of Mars and Jupiter the interval amounts to 349,000,000 of miles, thus interrupting the apparent order of distance, and which is resumed by the distances of the Planets then known beyond Jupiter. Professor Bode at about this time published his celebrated law of the planetary distances. This law may be thus stated. If we set down the number 4 several times in a horizontal line, and to the second from the left hand add 3; to the third add twice 3, or 6; to the next add twice 6, or 12; to the next add twice 12, or 24, and so on; the sums of these numbers will represent nearly the relative distances of the Planets from the Sun; thus:—

4	4	4	4	4	4	4	4	4	&c.
-	3	6	12	24	48	96	192	384	&c.
Sums	4	7	10	16	28	52	100	196	388 &c.

If the distance of the third Planet (the Earth) from the Sun be called 10, then, in this scheme, 4 will represent nearly the distance of Mercury; 7, that of Venus; 16, that of Mars; 28, that of the then unknown Planets, or, as it is now known, of the nine small Planets, &c. In the years 1784 and 1785, Baron de Zach, from these analogical distances, calculated the orbit of the empirical Planet, and published the results of his calculations in the Berlin Almanack for 1789. He gave the distance of the assumed Planet from the Sun as nearly 2½ times that of the Earth from the Sun, and that its period of revolution was about four years and nine months. In the year 1800, Baron Zach formed an association of 24 observers, who divided the Zodiac into 24 zones, each observer to examine one

part, for the express purpose of searching out this concealed Planet. On Jan. 1, 1801, Piazzi, the Director of the Observatory at Palermo, noticed a small star in Taurus, which, on January 2, he found had retrograded no less than 4 minutes of arc in right ascension, and 3½ minutes of arc in N. declination. This retrograde motion continued till January 12, when the movement changed to direct motion. This proved to be a Planet; and Piazzi gave it the name of Ceres, in honour of Sicily, Ceres being the tutelary goddess of that country; and her emblem, the sickle (☿), was adopted as the symbol of this Planet.

On the 28th of March, 1802, Dr. Olbers, of Bremen, in Lower Saxony, found another Planet situated in Virgo, and which, like Ceres, was found to revolve in an orbit situated between Mars and Jupiter. Dr. Olbers gave this Planet the name of Pallas, and chose the lance ♀, the attribute of Minerva, as its symbol. Thus two Planets were discovered, where one was suspected; and it was conjectured that they were fragments of a broken Planet, which had formerly circulated at the same distance from the Sun, and had been shattered by some internal convulsion. On this hypothesis, it was thought that there were other parts undiscovered, and the search was rigorously kept up.

On the 1st of September, 1804, M. Harding, at the Observatory at Lillenthal, near Bremen, observed a small star in Pisces, which proved to be a Planet, moving also at about the same distance as the two preceding Planets from the Sun. The Planet was called Juno, and the starry sceptre of the Queen of Olympus was adopted as its symbol ♀.

On the 29th of March, 1807, Dr. Olbers discovered another Planet, then occupying a position in Virgo, whose orbit was found to be also situated between those of Mars and Jupiter. Gauss named this Planet Vesta, and chose for its symbol ♂, an altar surrounded with a censer holding the sacred fire.

Thus, within six years, four Planets were discovered. After the discovery of Vesta, the examination continued till 1816, but without detecting another planetary object.

On the 8th of December, 1845, M. Hencke, of Driessen, while examining a portion of the heavens in Taurus, saw a star occupying a position where, he felt assured, no star previously existed. This object proved to be a Planet, and was found to be one of the remarkable group situated between Mars and Jupiter. The place of this Planet at the time of its discovery, and its path in the heavens, was engraved in the ILLUSTRATED LONDON NEWS of February 7, 1846. It is called Astrea, and its symbol is ♄.

The discovery of the Planet Neptune ♆, September 23, 1846, at Berlin, was announced in the Almanack for 1847; and a chart, showing its place in the heavens at the time of discovery. Other particulars were given of this Planet in our Almanack of last year. To these we have to add, that Mr. Lassell, of Liverpool, who is in possession of an excellent telescope, on the 3rd of October, 1846, was impressed with the idea that the Planet had not the appearance of a round ball only, but that like Saturn it was surrounded by a ring. Since that time, Mr. Lassell has perfectly satisfied himself that this appearance does not arise from any defect in his telescope; and he has frequently seen the same appearance.

Professor Challis states that, on the 12th of January, 1847, he received a distinct impression that the Planet was surrounded by a ring; on the 14th, he saw the ring again. The ratio of the diameter of the ring to that of the Planet was about that of 3 to 2.

It seems certain that Neptune is attended by a satellite, and Mr. Lassell has determined its period to be 5d. 20h. 51m.

The orbit of Neptune, however, differs very materially from that assigned to it by Le Verrier and Adams; it is found to differ very little from a circle; and its distance from the Sun is less than that assigned to it by theory, and does not confirm Bode's law of planetary distances.

From these circumstances an attempt has been made, originating in America, with Professor Pierce of Cambridge, United States, and others, and subsequently by M. Babinet, to deprive Messrs. Leverrier and Adams of the great honour so justly due to these gentlemen, by asserting that the Planet Neptune is not the planet that their calculations had pointed out. The difference between the elements of this planet as indicated by theory—before any human eye had ever viewed it as a planet—and those deduced from observation, are not greater than might have been expected. It must be regretted that any difference of opinion on this subject should have existed.

On July 1, 1847, M. Hencke discovered another Planet, situated in Ophiuchus, and to which the name of Hebe was given, with a cnp for its symbol (☿). The place occupied by the Planet at the time of its discovery is shown in the annexed engraving.

PLACE IN THE HEAVENS OCCUPIED BY HEBE, ON ITS DISCOVERY BY

M. HENCKE.



On August 13, 1847, Mr. Hind discovered another member of the remarkable group of Planets between Mars and Jupiter. Mr. Hind observes, in the Monthly Notices of the Astronomical Society (Vol. xvii., No. 17), that "the Planet has

\* The interval between Mercury and Venus is too large; and it seems highly probable that there are Planets situated between them, which are invisible by reason of their small size and proximity to the Sun.



been detected in a systematic search, instituted expressly with the view to the discovery of such a body, and commenced in November, 1846. The name given to this Planet is Iris, and the symbol adopted for its designation is a semicircle, with an interior star (☾). The place in the heavens occupied by this Planet at the time of its discovery was engraved in the ILLUSTRATED LONDON NEWS of August 21, 1847.

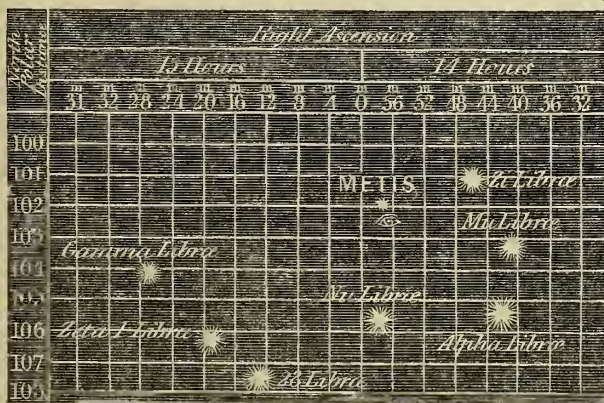
On October 18, 1847, Mr. Hind, while comparing the excellent chart of Professor Knorre with the heavens, discovered what seemed to be a star of the ninth magnitude, and which proved to be another of this remarkable group of Planets. At Mr. Bishop's request, Sir John Herschel has named this Planet, Flora, with a flower (♂) for its symbol. The place occupied in the heavens at the time of its discovery is shown in the annexed engraving.

PLACE IN THE HEAVENS OCCUPIED BY FLORA, ON ITS DISCOVERY BY MR. HIND.



\* On April 25, 1848, Mr. Graham discovered another Planet, at Mr. Cooper's Observatory, Markree, Sligo, Ireland, by following up a class of observations recommended by Mr. Cooper. This Planet has been named Metis, with an eye and star for its symbol (☾). Its place in the heavens at the time of discovery is shown in the annexed engraving.

PLACE IN THE HEAVENS OCCUPIED BY THE PLANET METIS, ON ITS DISCOVERY BY MR. GRAHAM.



Thus six Planets have been discovered in less than three years: the first, Astræa, the 8th of December, 1845; the last, Metis, April 25, 1848. These several discoveries of telescopic Planets lead us to suspect the existence of many such bodies, yet undiscovered; and there seems good reason to believe that in a few years we shall have a large addition to the members of the Solar System. M. Valz has proposed to the Académie des Sciences de Paris, a plan which, it is believed, would, in four years discover all these unknown Planets, by examining carefully all the small stars situated near the ecliptic. To the carrying out of this plan it is necessary to construct 24 celestial charts, containing all the stars to the 12th magnitude situated in or near the ecliptic, and subdividing the work of examination into twelve parts. M. Valz has presented to the Académie a chart of this kind, constructed by M. Faye.

The dimensions of the orbits of these nine small planets are nearly the same; but their inclinations to the plane of the ecliptic are very different. Their inclinations are—Flora, 9° 1' 37"; Iris, 13° 20' 50"; Vesta, 5° 7' 22"; Hebe, 11° 31' 11"; Astræa, 10° 49' 56"; Juno, 14° 42' 20"; Ceres, 4° 24' 57"; Pallas, 13° 54' 49"; and Metis, 5° 35' 24". Their periods of revolution are, Flora, 1193 days; Iris, 1345 days; Vesta, 1325 days; Hebe, 1375 days; Astræa, 1510 days; Juno, 1595 days; Ceres, 1681 days; and Pallas, 1686 days.

The dimensions of all these Planets are small; and they are not distinguishable by the naked eye; and the most powerful telescopes have hitherto failed to measure their apparent diameter with even tolerable accuracy.

## TIMES OF THE POLE STAR BEING ON THE MERIDIAN, OR DUE NORTH, DURING THE YEAR 1849.

THE Pole Star being situated at the distance of 1½ from the North Pole, describes a small circle round it once in 24 hours, and is therefore on the meridian, or due north, twice every day, once above the point round which it revolves, and once below it. The following are the times on the 1st day of every month this year that the Pole Star is so situated, and at no other times is this star due north on those days:—

	D. H. M.		D. H. M.
Jan. 1 at 6 22 2 A.M. below the Pole, and 6 20 4 P.M. above the Pole.			
Feb. 1 " 4 19 43 " " 4 17 45 " "			
March 1 " 2 29 19 " " 2 27 21 " "			
April 1 " 0 27 16 " " 0 25 19 " "			
May 1 " 10 27 28 " above the Pole, and 10 25 30 " below the Pole.			
June 1 " 8 25 52 " " 8 23 54 " "			
July 1 " 6 28 19 " " 6 26 22 " "			
Aug. 1 " 4 26 50 " " 4 24 51 " "			
Sept. 1 " 2 25 17 " " 2 23 20 " "			
Oct. 1 " 0 27 30 " " 0 25 32 " "			
Nov. 1 " 10 23 37 " below the Pole, and 10 21 39 " above the Pole.			
Dec. 1 " 8 25 27 " " 8 23 29 " "			
Dec. 31 " 6 27 8 " " 6 25 10 " "			

From these times those of the meridian passage of the star can be easily calculated for any other day in every month.

All stars whose angular distance from the North Pole is less than the co-latitude of the place of observation, are on the Meridian twice every day; and all stars whose distance from the North Pole is greater than the co-latitude of the place, are on the Meridian once only every day; and at these times they are situated due south.

## MAGNETIC DECLINATION, OR VARIATION OF THE COMPASS.

In the Almanack for the year 1847, we gave the average monthly position of the magnetic needle, with respect to the astronomical meridian, for the years 1841, 1842, and 1843. In the Almanack of last year, the values of the angles between the astronomical and magnetic meridian for Greenwich, were given for the year 1844. Within the last year, two volumes of the Greenwich Magnetic and Meteorological Observations for the years 1845 and 1846 have been published; from which we learn that the following were the monthly values of the westerly declination, deduced from two-hourly observations made during the day and night, in the years 1845 and 1846.

	1845.		1846.
January .....	22° 58' 6"	January .....	22° 50' 56"
February .....	22 57 20	February .....	22 50 17
March .....	22 57 6	March .....	22 49 21
April .....	22 59 14	April .....	22 51 51
May .....	22 57 28	May .....	22 49 32
June .....	23 1 10	June .....	22 51 43
July .....	22 57 24	July .....	22 49 24
August .....	22 58 11	August .....	22 49 33
September .....	22 56 7	September .....	22 48 55
October .....	22 53 21	October .....	22 47 55
November .....	22 52 53	November .....	22 47 38
December .....	22 52 18	December .....	22 47 51

And the mean westerly declination, for the year 1845, was 22° 56' 43"; and that for the year 1846 was 22° 49' 35". The decrease, from the year 1844 to 1845, was 18' 36"; and that from the year 1845 to 1846 was 7' 8".

## MANETIC DIP.

If a magnetic bar be suspended by its centre of gravity, so as to counteract the action of gravity, it will settle in the Magnetic Meridian; but that extremity of it which is directed towards the north will point downwards, or, as it is technically called, dip. The magnet thus inclined at Greenwich is now something less than 69°. The following are the mean quarterly values of this element, as observed at the Royal Observatory, Greenwich, in the years 1845 and 1846, extracted from the published volumes for those years.

### MEAN QUARTERLY MAGNETIC DIP.

Months forming the Quarterly Period.	At 9h A.M.		At 3h P.M.	
	1845.	1846.	1845.	1846.
January, February, March .....	68° 0'	68° 58'	69° 0'	68° 56'
April, May, June .....	68° 58'	68° 57'	68° 57'	68° 57'
July, August, September .....	68° 56'	69° 1'	68° 54'	68° 59'
October, November, December ..	68° 54'	68° 59'	68° 59'	68° 59'

And the mean value for the year 1845, at 9 A.M. was 68° 56½'

" at 3 P.M. was 68° 58'

" 1846, at 9 A.M. was 68° 58'

" at 3 P.M. was 68° 57½'

The mean Magnetic Dip, at 9h. A.M., had decreased between the years 1844 and 1845 by 3½', and between the years 1845 and 1846, it had increased 1½'.

The mean Magnetic Dip, at 3h. P.M., had decreased between the years 1844 and 1845 by 2'; and between the years 1845 and 1846, it had decreased by half a minute of arc.

These values of the dip and declination at Greenwich are not always the same. See the Almanacks of the two preceding years.

## ENCKE'S COMET.

In the year 1818, Encke ascertained the period of a small comet to be 1208 days only. This announcement was received with some degree of doubt by many persons. The comet had been seen several times before; in 1786, by Messrs. Mechain and Messier; in 1795, by the late Miss Herschel; in 1805, by Pons; and in 1818, by Pons again; but at these times it was supposed that different comets had been observed. Encke announced its re-appearance in 1822, and it was observed at this time by Sir Thomas Brisbane, at Paramatta. It has since been observed at the predicted times, but differing somewhat from the predicted places, these differences always being the same way; and hence it was supposed that this was caused by the comet meeting resistance to its free motion by the medium through which it passed. On August 14th, 1848, Lieutenant Stratford, the superintendent of the Nautical Almanack, published an ephemeris of this comet; and on September 22nd, 1848, it was discovered by Professor Smyth, at the observatory of Dr. Lee, at Hartwell, occupying a place differing from that predicted by 24 seconds in Right Ascension, and 50 seconds of arc only in North Polar distance.



## THE FLOWER-GARDEN, &amp;c.

BY MRS. LOUDON.

## JANUARY.

The principal work that can be done in a garden in January is to protect tender plants from frost, and this is a task of no small difficulty in pleasure-grounds and shrubberies, as damp must be guarded against as well as cold. After warm dry summers the task of protecting half-hardy shrubs during the winter is rendered comparatively easy, by the ripening and hardening of the wood; but after a summer like that of 1848, the young wood which has grown remains even in winter green and succulent, and is as easily killed as the stalk of any herbaceous plant. After such a season it will be useless to attempt to cover the stems and leaves of half-hardy evergreens, particularly those with thick fleshy leaves, like the camellia and the evergreen magnolia; and the best way will be to protect their roots and the lower part of the stem with a thick mulching of straw or decayed leaves. In most situations, the acacias and other Australian plants which require matting to preserve their stems, will probably be killed to the ground; but it must be observed, that when acacias are killed by frost, the stem only should be cut down, and the root should be left in the ground, as in most cases it will send up fresh shoots the following spring. Herbaceous plants require no other treatment than covering the roots with dead leaves, as the stems generally die down in autumn. The tree peony is, however, frequently affected by spring frosts, and it is best protected by a skeleton framework of hoops, covered with matting, sufficiently large and light to admit of its being taken off in the middle of the day, when the air has been warmed by the sun. Bulbs, when they are left in the ground during the winter, should never be covered with straw, and only moderately covered they are frequently attacked by mice. Alpine plants are most easily protected by plunging the pots in a bed of earth, over which is placed a skeleton frame made of half hoops at regular distances, and covered with matting. It must be observed that in all cases where it is directed to protect plants by covering them with mats, which are to be taken off during the day when it is not actually freezing, the mats must always be replaced before the sun sets; or, as a safer rule, they should only be taken off between ten in the morning and three o'clock in the afternoon. The eggs of insects should be sought for at this season, and destroyed wherever they can be found.

In greenhouses as much mischief is often done by keeping the plants too hot, as would have been experienced by exposing them to the cold. The proper heat, for a greenhouse is never to let the thermometer fall lower than 40°, nor rise above 45°. Air should also be given regularly every day when it is not actually freezing. It is an important axiom in plant culture, that air is as necessary as water; and the admission of air to a greenhouse, particularly during winter, is absolutely essential for the health of the plants. Plants obtain nourishment from air as well as from water; and when they have too much water and too little air, they invariably damp off. The sashes of every greenhouse should be made open at the top, to admit the exit of the heated air before any cold air is suffered to enter; as, if the lower sashes are opened first, so as to admit the cold air before the heated air has escaped, the latter is condensed, and falls back upon the plants in visible drops, and this is found to be highly injurious to them. Plants may be preserved during winter in what is called a cold pit, quite as well as in a greenhouse. A cold pit is an excavation in the ground, to the depth of about three and a half or four feet, and about six feet long and four feet wide. It is lined with brick, the brick-work being raised about a foot above the surface of the ground, and a wooden

frame, the angle of which should be between 15° and 25°, fixed to it, in which a sash light is made to slide. The plants are placed at the bottom of the pit, and, when the weather is very cold, a mat is placed over the glass. In most places plants may be preserved in pits of this kind during the most severe winter without fire heat. When the plants to be preserved are very small, the pit need not be made so deep. When plants are kept in pits of this nature, they will require air to be given to them every fine day between ten and three. It should never be forgotten that all plants, whether in the open air or in a greenhouse, should be kept as dry as possible during winter. Plants in pits and greenhouses should have no more water given to them than is sufficient to keep them alive.

Among the few ornamental plants which are in flower at this season, may be mentioned a new kind of yellow Jasmine (*Jasminum nudiflorum*), which was introduced by Mr. Fortune, from Nankin in China, in July, 1844. It was at first kept in a greenhouse; but, like most of the other plants which have been introduced from China, it was soon found to do best in the open air; and it flowered beautifully in the garden of the Horticultural Society at Chiswick, for the first time, in January, 1848. The flowers are produced in great

abundance, but are destitute of fragrance, and appear without the leaves. The plant is generally trained to a trellis, or tied to an upright post three or four feet high, so as to permit the young twigs to hang down, which they are naturally inclined to do.

## FEBRUARY.

There is very little to be done in the pleasure-grounds and shrubbery in this month; but the gravel walks in both should be attended to, as gravel walks are very liable to be injured by melting snow. Care, therefore, should be taken, as

soon as a thaw commences, or before, to remove a portion of the snow; and, as soon as the ground is sufficiently dry, the walks should be carefully rolled. Seeds of trees and shrubs are generally sown in this month; and the rule for sowing them is to let the soil be as deep above the seed as the seed is thick.

In the flower-garden great care should still be taken to protect the half-hardy plants, not only from the frost, but from the sun, which at this season is frequently very powerful. It must be observed that the mischief done by frost is always very greatly increased if the sun be permitted to shine upon the frozen plant: it is like exposing a frost-bitten person to the heat of a great fire. The best thing that can be done when a plant is frozen is to cover it over with a flower-pot, or some other covering, till the air has gradually become sufficiently warm to thaw it slowly. The choicer kinds of anemones and ranunculuses are planted in this month. They are generally planted in rows about five inches apart and two inches deep; and a little sand is put under each tuber when it is planted. In planting the ranunculus tubers, care should be taken to put the claws downwards, and not break off any part of them, as when the claws are broken off the tubers are very apt to rot. In planting the anemone tubers, the eye or bud should always be kept uppermost. This is generally considered the season for manuring a flower-garden, and the best kind of manure for the purpose is the remains of an old hot-bed. Decayed leaves, which have become a kind of mould, and chopped turf taken from an old pasture, are also very useful for enriching the ground intended for flowers; but guano and the new kinds of mineral manures are very dangerous in inexperienced hands, and even first-rate gardeners frequently find them produce injurious effects.

Very few flowers are in blossom in February, though sometimes a few early crocuses and snowdrops make their appearance even in the beginning of the month; and cinerarias, kalmias, and a few other plants, forced into flower by fire heat, are seen in the greenhouses. In the shrubbery, almost the only ornamental tree in flower is the *Chimonanthus fragrans*, or winter flower, which produces its delightfully fragrant flowers from December to March, though they are in the greatest perfection about February. This very interesting plant was introduced so long ago as 1776; but, as it was at first supposed that it would not live without protection, and as it will not flower till it is of a considerable size, it was very little grown. At last it struck some cultivator, that, as it was a native of Japan, it might very possibly live in the open air, as many plants from that country are found to do in England; and it is now found to grow freely in the open gardens in the neighbourhood of London, and to produce abundance of flowers, particularly if trained against a wall. The flowers are yellowish, with a purple mark at the bottom of each petal, and they appear before the leaves, which are of a smooth shining light green. There are two varieties: the first, which is common, has the flowers much larger and handsomer than those of the species but not quite so fragrant; and the other, which is very rare, has the flowers much smaller, and entirely yellow. In China and Japan, it is said that at great banquets pieces of the *chimonanthus* are laid by every plate. Plants of this shrub may be procured in most of the nurseries at about three-and-sixpence each; observing that it is known best under its old name of *Calyanthus praecox*.

In greenhouses ventilation ought to be carefully attended to. Whenever the air is mild, and the sun shines, the door should be opened, as well as the windows, for at least half an hour in the middle of every day, so that there may be a free current of air through the house. All the dead leaves should be removed as soon as they are sufficiently decayed to come off the plant without injuring it; and if any moss or green matter appears on the surface of the earth in the pots, it should be removed, and the earth loosened with a flat piece of stick about an inch broad. It must be observed, that what has been said of removing the dead leaves does not apply to bulbous plants, as their leaves should be left on as long as possible. Plants require very little water at this season; but fire heat is even more useful than in the middle of winter, as it serves to dry up the damp, which is now a most dangerous enemy to plants. Where cuttings of greenhouse plants which were struck in autumn have been kept several together in one pot during the winter, they should now be potted separately.

A hot-bed may be made in this month for raising the seeds of tender flowers and striking cuttings. The manure used need not be more than two feet deep, and it should extend three or four inches beyond the frame on every side. When the stems of the manure is sufficiently gone off, a layer of light soil, six inches thick, should be spread over the bed. In this bed may be plunged pots containing the seeds of petunias and verbenas of various kinds, *Phlox Drummondii*, several sorts of mimulus, the blue lobelias, &c., and also of the following kinds of climbing plants, which will be found very useful for training against verandas, or to cover iron railings during summer:—The canary-bird flower (*Tropeolum peregrinum*), *Lophospermum scandens*, *J. Hendersoni*, *Maurandia Barclayana*, *Eccremocarpus scaber*, *Rhodochiton volubile*, *Thunbergia alata*, *T. alata alba*, *T. aurantiaca*, *T. a. superba*, and *Ipomoea rubro-cerulea*. The bulbs of various kinds of smayllis, and those of *Agapanthus umbellatus*, may now be potted in a compost of two parts of loam and one of rotten manure from an old hot-bed, with a little rough sand, and the pots plunged in the hot-bed. They should be watered when potted; but they will not require any more water until they begin to grow. The tubers of *Fuchsia fulgens* and *Salvia patens*, and the bulbs of *Achimenes longiflora*, may be treated in the same manner.

## MARCH.

In this month turfs generally laid down, the ground having been first dug over, levelled, and rolled with a heavy roller. It is then slightly watered, if the weather happens to be dry; and the turf, which is brought to the ground in long strips rolled up, is laid down, the edges being carefully joined, and the pieces made to fit exactly. The turf is then generally beaten with a heavy beater, and carefully rolled. Where a lawn has been laid down a long time, it should be frequently rolled in this month, as lawns are very apt to become uneven during winter. The grass should now begin to be mown once a fortnight, as it is impossible to have a fine closely covered surface of grass without regular mowing: the rule is, once a month in winter, that is, in December, January, and February; and once a fortnight for the rest of the year. In warm moist seasons, the grass sometimes grows so fast as to require mowing once a week in summer; but in dry seasons the roots are apt to be burnt, and the grass killed, if it is mown too often.

In the flower-garden most of the plants will now require to be taken up, divided, and re-planted; a little fresh earth being given to them, and all the decayed parts cut out before they are re-planted. The seeds of half-hardy annuals, such as the China asters, Chinese pinks, French and African marigolds, everlasting, and ten-week stock, may now be sown in a slight hot-bed; and a few of the more hardy annuals, such as the sunflower, larkspur, lupin, convolvulus, candytuft, and poppy, may be sown in the open border; also some of the Cali-



CHIMONANTHUS FRAGRANS GRANDIFLOUS.



JASMINUM NUDEFLOSUM.



formian annuals, such as *Nemophila insignis* and *N. maculata*, *Gilia bicolor* and *tricolor*, and all the kinds of *Leptosiphon*. Carnations and pinks which were raised from layers last year should now be planted out where they are to flower. Box edgings should also be now planted, and gravel walks made where necessary. Old gravel walks which are in a bad state may now be raked or forked over, and then rolled, though this should never be done when the walks are wet.

In the open ground, the crocuses, hepticas, and other spring plants are now in full flower; and in the shrubberies, the ash

berberries, or malonias, are in all their beauty. These plants, which have all been introduced within the last thirty years, are some of the most valuable additions that have been made for many years. One of the most splendid kinds is the holly-leaved ash berberry (*Mahonia Aquifolium*). It is an evergreen, and its leaves, which are of a beautiful dark shining green in summer, assume a purplish tinge in autumn and winter, and are of a beautiful yellowish red when they are quite young. The flowers, which are of a brilliant golden yellow, are produced in large clusters in March and April, and they are succeeded by clusters of dark purple fruit, covered with



MAHONIA AQUIFOLIUM.

the most beautiful violet bloom. The plant is a native of California and Mexico, and, indeed, it is found on nearly all the north-west coast of North America, growing in rich vegetable soil in woods, where it forms a thick undergrowth. When it was first introduced into England, in 1823, the plants sold in nurseries at ten guineas each; and, as it could only be propagated very slowly by layers, the plants continued to be sold at a high price for several years. As, however, it is now found that it can be propagated by seeds, which ripen freely in this country, plants can be procured in most nurseries at sixpence each. There are several other kinds of *Mahonia*, the largest and most showy of which is called *M. fascicularis*. It has bluish-green leaves, which look as if covered with a fine bloom, and its flowers are produced in great abundance. It is much taller than the other species, but it is rather too tender to live in English gardens without the protection of a wall; and as it does not ripen its seeds freely, it is still rather dear. Hybrid plants, however, have been raised by crossing this with some of the other species. *M. repens* seldom rises above two feet high; and *M. glumacea* has the peculiarity of producing its flowers in October.

In greenhouses the plants should be carefully examined, and re-potted when necessary, taking care that the fresh pots are quite clean and dry. Cuttings of greenhouse plants are frequently made at this season. The shoot should be cut off as smooth as possible, and planted in sandy soil, the earth being pressed firmly round it. The length of the cutting is generally about five or six inches, and two of the lower leaves are cut off with a sharp knife close to the stem. Cuttings of camellias and other hard-wooded greenhouse plants are generally made at this season from the points of the shoots, after the spring growth has been completed, but before the young wood has thoroughly ripened. The cuttings are generally planted about an inch deep, and covered with a bell-glass. Those of the different kinds of beat, being very difficult to strike, are generally made not more than one or two inches long, and they are planted in pure white sand, being then covered with a bell-glass, and the pot plunged in a hot-bed. Cuttings of cactus, mesembryanthemum, and other fleshy-leaved plants, should be dried for two or three days before they are planted, as if they are put in the ground when the wound is fresh they will rot.

#### APRIL.

In the pleasure-ground and shrubbery, half-hardy shrubs are generally planted at this season. If they have been kept in pots, the ball of earth about the roots should be broken, and the roots carefully spread out before they are covered with earth, which should be to the depth of only from two to four inches, according to the soil; the greatest depth being necessary in the lightest soil. The Provence, white, and moss roses should now have their young shoots shortened to three or four buds; but the hybrid Provence roses should have five or six buds left; and the hybrid China, the Bourbon, and the Scotch roses, if intended for planting against a post, or a wooden frame, should have only the tips of their shoots taken off. The evergreen roses should be left at their full length; for if they are cut in they will produce long vigorous shoots, covered with an abundance of leaves, but having no flowers.



DIELYTRA SPECTABILIS.

mainder of the hardy annual plants should be sown. In thinning the annuals

that have come up, care should be taken not to pull up or loosen those which are intended to remain. Annuals should always be thinned according to their height, three or four of the larger kinds being left in each patch; while of the dwarf kinds it may be safe to leave as many as seven or eight. Some few annuals are worth the trouble of transplanting; but when this is the case, the hole in which they are to be put should be made with the point of the trowel, instead of using the dibber, as the latter instrument renders the earth on the sides of the hole so compact that it is impossible for the roots of a young and feeble plant to penetrate into it. Among the flowers which are most beautiful in this month may be mentioned *Dielytra spectabilis*, introduced by Mr. Fortune, from China, in 1846. It is quite hardy in ordinary flower-gardens; the stems dying down to the ground in autumn, and the roots remaining dormant until the following spring, when the plant again appears, and flowers in April, May, and June. It is readily increased by dividing the roots in spring when the young shoots begin to appear, or by cuttings taken off in summer. It will grow in any common garden soil; but the situation in which it is placed should be sheltered from high winds. This plant is, at present, scarce and dear. It is nearly allied to the fumitory, but its leaves resemble those of the tree peony.

The greenhouse will require very little attention in this month, except as relates to watering the plants regularly, and giving them air. The plants that are coming into flower should be syringed over their leaves every other day till the flowers expand, when the syringing should be discontinued. In small greenhouses where there are vines, they begin to show flower-buds in this month.

In the conservatory, climbing plants are generally pruned and thinned at this season. The passion-flower should have its side shoots cut to within half an inch of the main stem; and this will occasion strong blossoming shoots to spring from the part left. *Maurandias* may be treated in a similar manner; but most of the other greenhouse climbers will only require thinning. When camellias are required to blossom early, they should be placed, during this month, in a hot-house, or some other situation where they can be kept at a heat of from 50° to 60°; taking care that, while they are kept in this heat, they are regularly watered every day and their leaves syringed every other day.

#### MAY

In the lawn worms are often very troublesome during this month; and, to kill them, the grass should be watered with lime-water, made by mixing forty gallons of water with one peck of freshly-slacked lime. The mixture should be well stirred, and then suffered to stand till the sediment is deposited.

The trees and shrubs which were planted in April should be frequently watered; the grass should be mown once a fortnight, and raked up, so as to cover the ground about the roots of the newly-planted trees, in order to keep them moist. The buds of the roses should be examined in this month, as they are very apt to have a small caterpillar in them, which, if not removed, will either destroy the bud, or, at least, prevent it from expanding.

In the flower-garden, some of the hyacinths and tulips will probably have their leaves sufficiently decayed to come off when slightly pulled with the hand; and, when this is the case, the bulbs should be taken up and spread out on a mat in some dry airy place. The crocuses, snowdrops, and coriiflages should, however, be left in the ground. The tubers of the tall-growing dahlias may be planted in this month; and when they are put into the ground care should be taken to place the eyes or buds uppermost, covering the crown with about three inches of soil.

*Weigela rosea* is a new plant which flowers in this month, introduced from China, by Mr. Fortune, in 1846. It forms a handsome middle-sized bush, resembling the *Philadelphus*, or, as it is generally called, the *Syringa*, or mock orange, and it is quite as hardy as that well-known plant. The flowers of the *Weigela* are of a beautiful bright rose-colour; and they are produced in great numbers, hanging down in graceful natural festoons. The plant will grow well in any common garden soil; and it is propagated by cuttings, made at any time in the spring or summer. Though so recently introduced, it is so easily propagated that it is already advertised in some nurseries at eighteen-pence a plant. This plant is nearly allied to the fly honeysuckle. The half-hardy annuals and climbing plants, which were raised in hot-beds, may now be planted out in beds, previously prepared by digging in a coating of the remains of an old hot-bed, or rotten leaves. If the plants, however, have been kept in the hot-bed where they were raised, they should be hardened, by placing the pots first in a greenhouse or cold frame, and then in the open air, first only in the middle of the day, and afterwards all day long, before the plants are taken out of their pots and finally placed in the open ground. In putting the plants into the ground, care should be taken to keep them at least a foot apart; and those that have long trailing branches should be planted with their branches to the north, the branches being pegged down immediately. As the art of pegging down judiciously is of the greatest possible importance to the beauty of a flower-garden, it is natural that amateurs should be anxious to know what to us for the purpose. Most gardening books say short hooked sticks; but these are not always to be obtained, particularly in suburban gardens. A correspondent of the *Gardeners' Chronicle* has lately recommended hair-pins, which answer the purpose very well, and which, though they may be despised by regular gardeners, are certainly very convenient for a lady, as they are very easily procured and easily managed. Another correspondent of the *Gardeners' Chronicle*, who despises the hair-pins, recommends taking pieces of bast mat, and twisting them so hard as to be able to force them into the ground; but this appears to me rather a difficult operation, and, as I have not been able to accomplish it myself, I think few ladies will be able to manage it, and that, therefore, it will be best for them to try the hair-pins, or to use small bent pieces of wire, prepared for the purpose, which are sold at some of the ironmongers. When plants are pegged down, the branches should be spread carefully over the beds, and the pegs placed at the joints.

Most of the greenhouse plants may be removed into the open air in this month; and, if they are to remain in pots, they are generally shifted about this time. When plants are re-potted, the earth should be shaken in, and gently pressed



WEIGELA ROSEA.



down, but not too firmly: as, in one case, if hollow places are left between the roots and the pot, the roots will wither; while, in the other, if the earth is too compact, the roots will not be able to penetrate through it, and it will become impervious alike to air and water. Where vines are grown in a greenhouse, the berries will now be generally set, and experienced gardeners always thin them, as more grapes are produced on each bunch than can be ripened. It is, however, rather a difficult operation for an inexperienced person, as the bunches must not be touched by the hand, and, consequently, it is generally safer for amateurs to leave the bunches without thinning the grapes. It will be, however, necessary to prune the vines, as the shoots generally push out vigorously at this season, and consequently gardeners generally cut off the ends of the shoots, leaving not above two joints on each. The greenhouse should be kept warm and as moist as possible while the grapes are swelling; but the vines should not be syringed, the moisture being produced by pouring water on the floor.

A great many caterpillars are found at this season; and they should be sought for, and destroyed early in the month, while they are small, as they have done their principal mischief when they have attained their full size.

## JUNE.

In the month of June there is very little to be done in the flower-garden. The work of preparation is over, and that of enjoyment has begun. In the pleasure-ground, however, the lawn should be mown every fortnight, and rolled every week; and in the flower-garden the annual flowers should be tied up and cut in where it is necessary to make them appear neat. Carnations are now going into flower, and as the buds are very apt to burst on one side before they open, some gardeners separate the sepals regularly all round with a penknife; others, to prevent the calyx opening too far, tie a piece of waxed thread round the middle; and others cut a piece of cardboard so as just to encircle the calyx, so that when the flowers expand the petals appear to rest upon the card, and, of course, form a regular flower. Box edgings should be cut about the middle of this month, if the weather be moist; but, if the weather be dry, it is generally considered advisable to wait for rain, as box edgings which are cut when the weather is dry are very apt to look brown, and to die half-way down the shoots. Amongst the multitude of plants which are in flower at this season, the most ornamental shrub is decidedly *Ceanothus azureus*, which is now covered with panicles of flowers, of a brilliant celestial blue. It is a native of Mexico, whence it was introduced in 1818, and it flowers best when growing against a wall. In its native country its bark is considered useful in cases of fever. There are several other species of *Ceanothus*, and amongst them the common red root, or New Jersey tea (*C. Americanus*). *C. azureus* is, however, by far the most ornamental species of the genus, and it may be procured in any nursery for about eighteen-pence a plant. *Ceanothus* is nearly allied to the genus *Rhamnus*.

CEANOTHUS AZUREUS.

As the greenhouse plants are now generally set out in the open air, the principal care that they require is to remove the dead leaves, and to prevent the roots from striking through the hole in the bottom of the pots. If any of the plants appear to droop when they evidently do not want water, they should be turned out of the pot on the hand, and their roots examined, as there is most probably a worm in the pot, which should be instantly removed, as worms in pots are very destructive by cutting through the roots. If any plants are kept in the greenhouse at this season, they should be frequently and carefully examined, as they are very apt to become infested with some kind of *Aphis*. They should also be watered and syringed every day, unless any chance to be in flower, when the syringing may be dispensed with.

In the vinery a moist atmosphere will be no longer requisite.

## JULY.

Very little requires to be done in the shrubbery at this season; but evergreen plants may now be removed if they are watered immediately after transplanting. The rhododendrons and other plants which have done flowering should have their seed pods removed as soon as they are formed, as if they are allowed to ripen their seeds every season, they will become weak and die in a few years of premature old age. In hot dry weather, choice plants in the shrubbery should be watered; but it is of no use doing so unless the surface of the ground is first loosened. Plants should never be watered with cold spring-water, as it is always injurious, and in very hot weather positively dangerous. Where there is no other water, it should be exposed to the atmosphere for several days before it is used.

In the flower-garden, this is the season for making layers. A layer is the branch of a plant, which is twisted or wounded so as to prevent the free circulation of the sap, and to occasion an accumulation of it to be deposited in the part just above the obstruction, which is buried in the ground in the hope that the warmth and moisture by which it is surrounded may induce it to send out roots. In general the layer is cut half through at the bend, and sometimes it is partially slit up. Sometimes layers are made all round a plant, the branches being pegged down so as to form a circle round the main stem. Many plants are propagated in this manner, and, among others, verbenas and carnations. Cuttings are also made at this season; and what are called pipings, which are, in fact, cuttings of pinks and carnations. This is also the season for budding roses. When this last operation is to be performed, the bud is taken from a shoot of the current year; but the stock may be of several years' growth. The bud is cut out by making a transverse incision in the wood, a little below an eye, which is met by two longitudinal cuts, meeting a short distance above the eye, so that when the bud is taken from the scion, it is with a triangular piece of bark, attached to which should always be a small portion of the wood, which, however, must be removed before the bud is inserted in the stock. When

the bud is prepared, two slits in the shape of an inverted T are made in the stock, and the bark on each side of the long cut being raised with a knife, the bark to which the bud is attached is slipped in, and tied in its place with bast mat; the principal care required in the operation being to make the horizontal edge of the cut in the stock fit exactly to the horizontal edge of the bud. One of the most beautiful shrubs now in flower is the *Lycasteria formosa*; as the deep green of its stem and leaves contrasts strongly with the reddish purple hue of the large bracteas which shade its white flowers. It is generally considered to be allied to the honeysuckles. The plant was originally introduced in 1824; but being little known, it was neglected and forgotten till it was re-introduced from Nepal, in 1836. It is quite hardy, and has the advantage of growing and flowering freely close to the sea. The tamarisk is another plant which will also grow close to the sea; but most other flowering shrubs are seriously injured by the spray.

In the greenhouse there is nothing to be done this month, except in the way of cleaning it, by whitewashing, painting, &c., if the plants have been all removed to the open air. Many of the greenhouse plants may, however, be propagated by layers or cuttings, and, in particular, cuttings may be made of hydrangeas, camellias, shrubby cinerarias and calceolarias, and pelargoniums (geraniums); and the cuttings that were made in March should be potted off. Camellias may be also budded or inarched in this month. It may here be observed, that whenever cuttings of woody plants are made at this season, they should be taken off at the junction between the old wood and the new; and they generally grow so readily, that if pots be scarce, they may be planted in rich earth in a warm border, provided they are closely covered with a hand-glass. In making cuttings of camellias, orange and lemon trees, the sweet-scented daphne, and other woody greenhouse plants, however, pots should be preferred; and they are found to strike soonest if the even base of the cutting is made to rest against the earthenware bottom of the pot; and in this way much larger cuttings can be struck than could be done by any other mode.

In the vinery, the principal duty of the gardener is to keep a dry atmosphere while the grapes are ripening, and to guard against wasps and other insects. At this season, some gardeners cut off the side shoots of their vines.

## AUGUST.

In the pleasure-ground and shrubbery the strong shoots of the coarser-growing shrubs should be shortened, or they will overpower the weaker ones. It is a very common fault, in planting shrubberies, to place choice and delicate shrubs near common coarse-growing ones, and then, in a few years, surprise is expressed that the valuable shrubs have vanished, and only the common kinds remain. The seed-vessels of the roses, rhododendrons, and other flowering shrubs, should be taken off as soon as the flowers have fallen, in order to prevent the ripening of the seeds, which would weaken the plants. If the flowers of all shrubs were removed as soon as the petals have fallen, the plants would not only be strengthened, but in many cases a second crop would be produced. Towards the end of the month, evergreen shrubs may be transplanted if they have completed their spring growth. Holes should be dug for re-planting before the plants are taken up, as evergreens should not be kept out of the ground a moment longer than can be avoided; the drying of their roots being very injurious to them. As large a ball of earth should be taken up with the plants as possible; and as soon as the plants are put into their places and a little earth thrown upon their roots, a quantity of water should be poured in through an old birch broom, a colander, or anything that will break the force of the water and prevent it from washing the earth away from the roots, and yet permit a sufficient quantity to be given to make the ground around the roots a kind of puddle. As soon as the watering has dried up a little, the earth should be filled in to the level of the ground, though it should not then be trodden; but after remaining four-and-twenty hours, it may be trodden down quite firm, and afterwards the surface dressed with a rake. In about a fortnight, if the weather should be dry, a good soaking of water should be given to the plants; and if the ground sinks at all, it should be filled up again level to the surface. If the weather should continue hot and dry, another thorough watering should be given at the end of another fortnight; and these waterings may be repeated occasionally, if they should be rendered necessary by the season, observing, however, that it is better to water the plants very seldom, and to give them a large quantity of water at a time, than to water them often, and to give them but a little each time.

In the flower-garden there is very little to be done. The flowering plants should be watered if they appear to droop; and the layers that were made from the carnations and pinks should be potted.

The greenhouse plants in the open air should be regularly watered every evening; and the auriculas may be repotted. Among the new plants that flower at this season may be mentioned the New Zealand speedwell (*Veronica speciosa*), which was introduced in 1843. It is a very showy plant, growing from three to six feet high, and producing large spikes of dark purple flowers. Though so lately introduced, it is already marked in some of the nurserymen's catalogues at eighteen-pence a plant. It is very nearly hardy, but it succeeds better when planted in a conservatory than in the open air, unless it is in a warm sheltered situation.

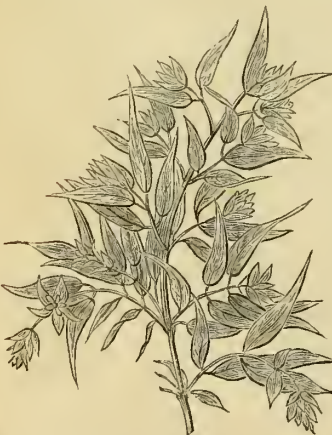
In the vinery, the grapes will now be ripe, and moisture and dust should both be guarded against till they are cut. As soon as the grapes are all removed, the leaves of the vines should be well syringed, and the plants watered at the roots.



VERONICA SPECIOSA.

## SEPTEMBER.

In this month the principal thing to be attended to in the shrubbery is to endeavour as much as possible to harden the tender trees and shrubs; and the only way to do this is to keep the roots as dry as possible, and to expose the branches to the full influence of the sun and air. Where half-hardy trees are grown against a fixed wall, the fire should be continued at this season, though the



LYCASTERIA FORMOSA.

which, however, must be removed before the bud is inserted in the stock. When



flowers are all over and even the leaves are beginning to fall, in order to ripen the young wood, that it may produce flower-buds for the ensuing year. Tender plants that have been grown in a dry soil, and have had their wood well ripened, will bear a much greater degree of cold than half-hardy plants which have been grown in a damp close situation, with stagnant water about the roots.

In the flower-garden, the annual plants which have done flowering should be pulled up and thrown away, as nothing can have a more wretched appearance than long, dry, leafless stems; and the bed from which they have been removed should be raked smooth. Beds for hyacinths and tulips should be prepared by

trenching them two feet or three feet deep, if the soil will admit of that being done without breaking into the sub-soil; and at about eight inches from the surface should be laid a thick stratum of strong loam and rotten manure well mixed. The beds should then be filled up with lighter loam, and left to settle for four or five weeks. Beds for ranunculuses and anemones are also sometimes prepared at this season, though it is better in most soils to postpone making them till February. There are, perhaps, few genera that have so great a variety in their flowers as the *Anemone*. The common garden anemones, as is well known, are of different shades of pink and purple; the wood anemone is white; the *Anemone palmata* of a brilliant yellow; and *A. apennina* of a celestial blue. But none of these flowers, though they are all beautiful, can be compared in splendour with the *Anemone japonica*, the flowers of which are of a bright



ANEMONE JAPONICA.

rose colour, and as large as a rose of the kind called *Rosa gallica*. This splendid plant, which is quite hardy, and which grows in favourable situations to the height of three or four feet, was introduced from China, by Mr. Fortune, in the year 1844; and though it was at first kept in the greenhouse, it is now found to produce larger and finer flowers in the open air in this month. In Japan, it is said to be found in damp woods, on the edges of rivulets; but it appears also to grow in mountainous places, both in Japan and China. Though so recently introduced, it may be procured in most of the nurseries at nine-pence a plant.

In the greenhouse, some of the more tender kinds of plants should now be housed, particularly the pelargoniums, the succulent plants, and the oranges and lemons. When the plants are first taken into the house the glasses may be left open night and day, but towards the end of the month they should be closed about five o'clock in the afternoon, and not opened again till about eight the following morning. If vines are grown in the greenhouse, the plants should not be taken into the house till the grapes are all gathered. Greenhouse plants should be pruned and cleaned before they are taken into the house, and well syringed, to clear them from insects. In this month the Cape bulbs should be potted, and put into a cold pit. If any cuttings of hydrangeas, or other plants, were made and put into the open border in July, they should now be potted and placed in a cold pit.

Some gardeners prune their vines at this season; as they say the buds are strengthened by their doing so, and a better crop is produced the following year.

## OCTOBER.

OCTOBER is rather a busy month for the gardener, as it is the season for laying out grounds, planting shrubberies, &c. Directions have already been given for planting evergreens, and the same plan may be pursued with deciduous shrubs. It is a great but very common fault in planting shrubberies, to place the plants too near each other. The choice plants, that are intended to remain, should be at such a distance as to allow for ten years' growth before they touch, and the intermediate space should be filled up with common plants, a few of which should be cut down every year as the other plants grow. By this treatment the shrubbery will never have a bare and desolate appearance, and the fine plants will be allowed to assume their proper forms and habit of growth. Care should also be taken not to plant the shrubs which are to remain too near the walks, as if they are badly placed in this respect, they will, in a few years, either require to be cut in so as to spoil their shapes, or they will overhang the walks so as to destroy half the enjoyment of the garden. When roses are planted, a pit should be dug for each, about two feet deep every way, and very rotten manure or thoroughly decayed leaves should be mixed with the soil when the roses are planted. Roses that are already in the ground should have very rotten manure or thoroughly decayed leaves laid over their roots, on the surface of the ground. Every fifth or sixth year roses



CESTRUM AURANTIAECUM.

should be taken up and their roots shortened, after which they should be replanted in fresh and very rich soil.

Hyacinths, tulips, crocuses, and several other bulbous and tuberous-rooted plants grown in the open ground, should be planted at this season, the hyacinths and tulips being planted in the beds prepared for them in September.

All the greenhouse plants should now be taken into the houses, and those plants which have done flowering should have as little water as possible, so as to prevent them from drooping; while, on the other hand, the chrysanthemums, and other plants which have not yet flowered, should have a great deal of water at this season, to assist them in perfecting their buds. The cuttings which were made of greenhouse plants intended for the open border the following summer, should now be put into cold pits to preserve them during the winter. The Cape bulbs, and the bulbs of *Agapanthus*, *Crinum*, and the beautiful Japan lilies, may now be potted and placed in a cold pit, where they will flower about the same time as those will do which are planted the following spring in a hot-bed. *Cestrum aurantiacum*, or the orange-coloured cestrum, is an exceedingly beautiful greenhouse plant, which was introduced by Mr. Skinner, from Guatemala, in 1843. Its flowers, though they are called orange-coloured, are, in fact, of the colour of a ripe apricot, a very unusual tint among flowers, and they have a strong perfume of orange-peel. They remain a long time on the tree without fading, and when they drop they are succeeded by snow-white pear-shaped berries, which are almost as ornamental as the flowers. The leaves are also very handsome, and of a dark shining green. The genus *Cestrum* was comparatively little known before the introduction of this beautiful plant; it belongs to the nightshade family.

## NOVEMBER.

In the pleasure-ground and shrubbery the dead leaves should be swept up as they fall and carried to some place where they can lie to rot, being turned over occasionally while they are in a state of decay. If there is no snow on the ground the gravel walks may be raked over to destroy the moss, and then rolled; and the lawn may be rolled.

Roses should be pruned at this season when they are intended to flower early, and each kind requires a different mode of pruning, as mentioned in April. It must be observed, however, that only the hardy roses will bear pruning at this season. The Scotch roses, the sweet briars, and the various kinds of climbing roses, should have only the tips of their shoots shortened; and the Bourbon and China roses, &c., should not be pruned till spring. Even at this season some shrubs are in flower in the open air; and amongst them may be mentioned *Garrya elliptica*, a handsome evergreen shrub, a native of the western coast of North America. The plant was introduced by Douglas in 1828, and it was long supposed to be the only species in the genus, the genus itself being so distinct that it cannot be placed in any known order. Lately, however, two or three other species have been introduced. For some years this plant continued scarce and dear, so that in 1838 plants were a guinea each: but they have now been so much increased by the quantities of seed imported, that they may be obtained at eighteen-pence each.



GARRYA ELLIPTICA.

There is scarcely anything to do in the flower-garden, except that tulips, hyacinths, crocuses, and some other similar bulbs, may still be planted if they were neglected in October.

## DECEMBER.

Very little can be done in the garden at this season, as the ground is generally covered with snow. As long as the frost continues the snow is not injurious to plants, but rather beneficial to them, as it serves as a covering to keep them warm; but as soon as it begins to melt, it should be thrown off the flower-beds and lawn, as snow water is so particularly cold and chilling that it will kill not only delicate flowering plants but the finer kinds of grasses.

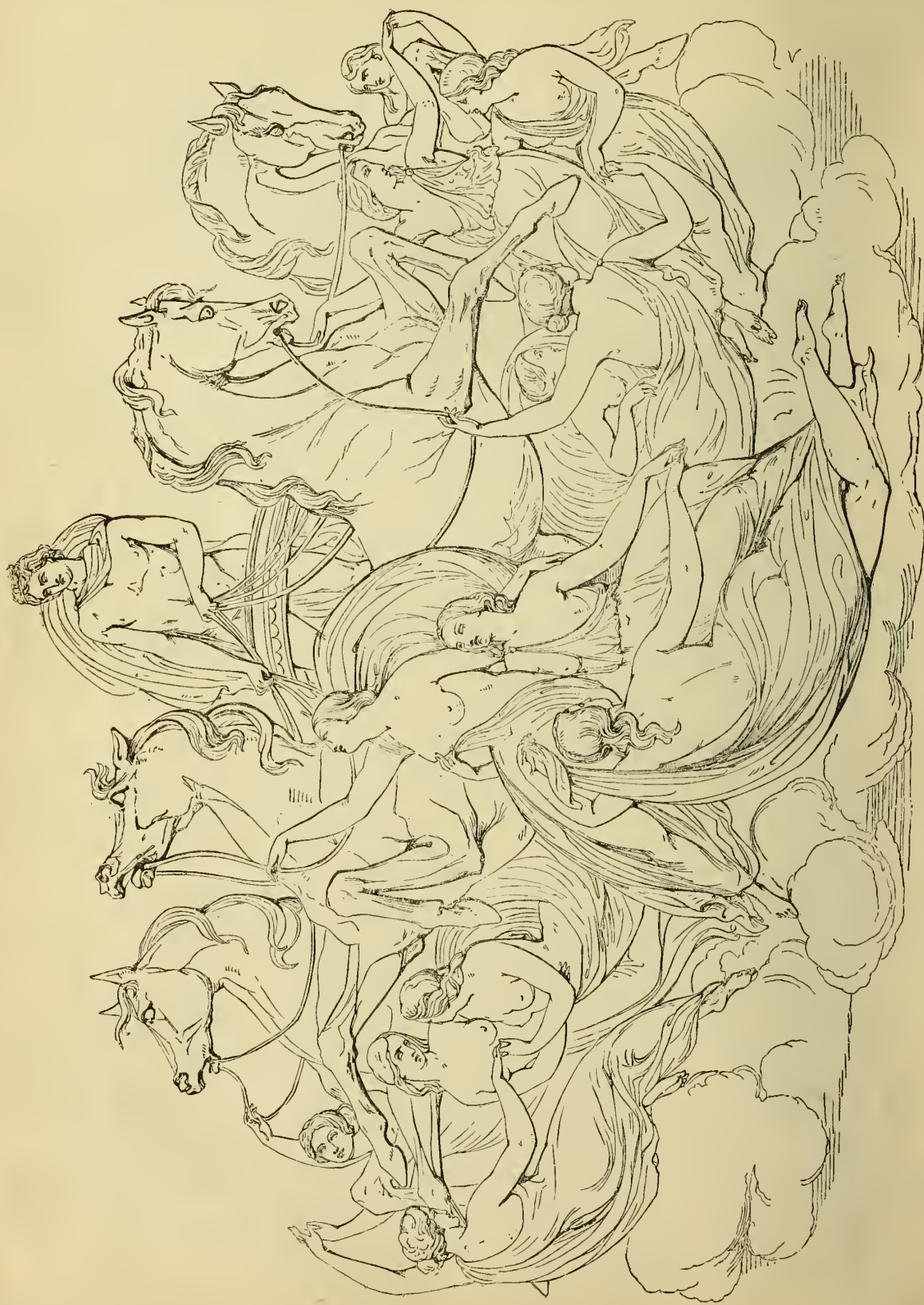
In the flower-garden the half-hardy plants will only require to be protected; and in the greenhouse and cold pit the same rules must be attended to as in November.

*Daphne Fortunei* is a beautiful greenhouse plant, very nearly allied to the common Mezereon, which flowers in England in December and January, though in China it is in full flower in March and April. It is at present extremely rare, but as it appears to strike freely from cuttings, it will probably soon become sufficiently abundant to try if it will stand the English winters in the open air, in which case it will probably blossom at the same time as in China. It was introduced in 1844 by Mr. Fortune.



DAPHNE FORTUNEI.





THE HOURS LEADING OUT THE HORSES OF THE SUN.



# Calendars, Almanacks, Wakes, and Fairs.

In former times, when the parish priest could scarcely con his missal, and when the felon who could read his "neck verse" was allowed the benefit of clergy, from his thus giving legal proof of his being a "clerk"—"*legit ut clericus*;" when a knowledge of the first four rules of simple arithmetic was a sufficient qualification for the office of Chancellor of the Exchequer; and when the wise man who could predict an eclipse of the sun or moon, always lay under the suspicion of practising the black art, what kind of Almanack was in use, and how did the husbandman mark the times of earing and of harvest, of sheep-washing and sheep-shearing, and of Wakes, Fairs, and Church Ales—matters in which he was deeply interested, both on the score of business and of pleasure?

It is unnecessary, here, to enter into any disquisition respecting the etymology of the word "Almanack," or the time when it began to be popularly used in Europe; it may be sufficient to remark that the thing, under the name of a Calendar, was known in this country at an early period; and that, in its general arrangement, the Calendar prefixed to a book of prayers, about the time of the Conquest, differed but little from a common Almanack of the time of James I. In some of those ancient Calendars there was a drawing at the commencement of each month, showing how the husbandman was usually employed at that particular period. For instance, in JANUARY, which the Saxons called *Guil aftera*—the month after Yule, or Christmas—there was the figure of a man drinking from a horn, representing the New Year festivities. FEBRUARY, *Sproutke* (cabbage-sprouting), or *Solmonath*, Cake Month—a man sitting idly on a bench, at the door of a house, the weather not yet permitting him to pursue his labour regularly. MARCH, *Leetl Monath*, Spring Month—a man digging. APRIL, *Oster* or *Easter Monath*, the month in which Christ's *eastering* or rising from the dead was commemorated—a man pruning a tree. MAY, *Trinilki*, Three Milkings, from the cows being milked thrice a day in that month, during the flush of the grass—a man pruning a vine. JUNE, *Weyd Monath* and *Mele Monath*, Meadow Month—a man wedding. JULY, *Hey Monath*, Hay Month—a man mowing. AUGUST, *Arn Monath*, Harvest Month—a man reaping. SEPTEMBER, *Gerst Monath*, Grist or Grinding Month—a man thrashing out corn for grinding. OCTOBER, *Wyne Monath*, Wine or Vintage Month—a man pouring wine from a flagon into a drinking cup. NOVEMBER, *Wind Monath*, Windy Month, also *Blut Monath*, as in this month they killed their cattle and swine for winter provision—a man killing a pig. DECEMBER, *Winter Monath*, and *Guil cora*, Ere or First Yule—a company feasting, indicative of the festivities of Christmas or Yule.

In those old Calendars, the names of the saints were inserted under their respective commemoration days; and such days as were more particularly observed by the Church as high festivals, were distinguished by being written in red ink, and hence the term "red-letter day," signifying a holiday. As the deaths of kings, popes, bishops, abbots, and other eminent persons, and also the dates of memorable events, were frequently inserted in those Calendars, they thus became, to a certain extent, Historical Recordors as well as Remembrancers of Times and Seasons. The introduction of astronomical observations and computations into the Calendar was probably owing to the circumstance of Easter Sunday having to be reckoned from the first new moon that occurred after a certain day. As Astronomy and Astrology were intimately associated in popular opinion, prognostications of the weather, and predictions of political events—"founded on the aspects of the heavenly bodies"—followed as a matter of course; but the seers were so frequently wrong in their foretellings, that "to lie like an almanack-maker" was proverbial in the time of Queen Elizabeth, long ere the art of "figure-fling" had attained the *ne plus ultra* of systematic mendacity in the person of William Lilly.

The oldest printed Almanacks appear to be those called "Wand Calendars"—Wall Calendars, or, as we now call them, "Sheet Almanacks"—engraved on wood, in the manner of block-books, and printed in Germany, about 1470. Till about the close of the fifteenth century, it would seem that this branch of the cheap book trade was chiefly in the hands of wood-engravers, who at that period appear to have travelled from place to place for the purpose of vending their productions. Previous to the introduction of printed Almanacks, "Clog Almanacks" were in common use in Denmark, Sweden, Norway, and England, and continued to be used by the poorer classes, and such as could not read, until comparatively recent times. These Almanacks obtained their distinctive name from their being formed of a *Clog* or piece of wood, on which were cut various marks, indicative of the days of the week and month, and of the Principal Fixed Terms and Festivals. Clog Almanacks inscribed with Runic characters appear to have been known to the people of Northern Europe, previous to their conversion to Christianity.

Dr. Robert Plot, in his "Natural History of Staffordshire" (folio, 1686), gives an engraving of "a Clog, or Staffordshire Perpetual Almanack," together with a copious explanation of it; and an ample account of ancient Danish Calendars, of a similar kind, is to be found in the "Fæsti Danici" of Olaus Wormius, printed at Copenhagen, 1643. Versteegan, speaking of the Anglo-Saxons, says:—"They used to grave upon certain squared sticks, about a foot length, or shorter or longer as they pleased, the courses of the moons of the whole year, whereby they could always certainly tell when the new moons, full moons, and changes should happen, as also their festival days." In Almanacks of this kind, a period of three months was usually inscribed on each side. The different marks were arranged in three columns; the first column contained the days of the month, in a repeated series of marks, in the same manner as the Dominical

Letters; the second column contained marks corresponding with the Golden Numbers, for the purpose of ascertaining the phase of the Moon; and the third was occupied with emblematical marks, expressive of "tides" and seasons and of the greater festivals and saints' days.

In Denmark, Sweden, and Norway, Runic Calendars were of various forms; sometimes carved on a piece of bone, and sometimes on thin pieces of wood, which were afterwards fastened together at one corner, by means of a peg or a thong, and were thus moveable, like the leaves of tablets. The most common form, however, of such Calendars was that of a staff, either squared at the sides or cylindrical; and the usual name for such a staff was, with the Danes, *rimstok*, and with the Norwegians, *primstaf*; the former term, according to Wormius, signifying simply a calendar-staff, and the latter a staff for finding the *prim*, or New Moon. A curious cylindrical staff of this kind was exhibited by Sampson Hodgkinson, Esq., at the meeting of the Archæological Institute, held at Lincoln, in July, 1848. It was about three feet eight inches long; and the Calendar was inscribed upon it in two divisions, commencing at the top, and extending down to the bottom, the one-half of the area being occupied with the six months from January to June inclusive, and the other half with the six months from July to December. The characters and emblems inscribed on the division comprising the latter six months are shown in the annexed cuts. The cut on the left shows the months July, August, and September; and that on the right, the months October, November, and December. In the original the inscription is a continuous line. The marks are arranged in three columns: the column, in which the characters are closest together, shows the days of the month; the second contains the Golden Numbers; and the third and widest contains the emblem of tides, festivals, and saints' days. It may be observed that most of those emblems are not placed exactly under the day of the calendar month to which they belong. In the column of days in the cut to the left, the first character that occurs is that which corresponds with G in our series of Dominical Letters; the second in the same column, that which corresponds with A; the third, B; the fourth, C; the fifth, D; the sixth, E; the seventh, F. All the rest of the days, to the end of December, are thus marked by a repetition of the same series of characters. The commencement of each month is denoted by a circle containing the figures of the Sun and Moon. The months are not lunar; but contain, respectively, the same number of days as our present calendar months. On the characters in the second column, denoting the Golden Numbers, it is unnecessary to make any remark, further than that they are letters of the Runic alphabet, and that they here represent numbers.

The following is an explanation of some of the emblems in the third column, commencing with JULY in the cut to the left, and continuing on through each succeeding month till the end of the year:—JULY: St. Margaret's day, a rake, indicative of the time of hay-harvest. St. Mary Magdalene's day, a kind of vase, representing the vessel containing the precious ointment with which she anointed Christ's feet. St. James's day, two acorns, relating to an ancient northern superstition which, according to Wormius, ascribed the origin of acorns to that day. St. Peter *ad vincula*, a key. AUGUST: St. Laurence, a gridiron, with an instrument like a flail behind it. The Assumption of the Virgin, a crown. St. Bartholomew, a knife, the instrument with which he was flayed. At Croyland Abbey, in former times, it was customary to give away small knives on St. Bartholomew's day. The Decollation of St. John the Baptist, a sword. SEPTEMBER: St. Giles, a pair of sheep-shears, because about that time they usually clipped their sheep. The Nativity of the Virgin, a crown. Holyrood Day, a cross. Michaelmas the Archangel's trumpet and a pair of scales, denoting the Equinox. St. Francis, a fish, because about this time the fishery was productive. OCTOBER: St. Bridget of Sweden, a wool-card, because about this time the farmers' servants were employed in carding wool. St. Calixtus, a leafless tree, denoting the fall of the leaf. In some calendars the emblem referring to this day was a glove, denoting the increase of the cold. St. Luke, an ox. NOVEMBER: Martinmas, a goose. In former times, the feast of St. Martin, of Tours, was generally commemorated with roast goose at dinner in England; the custom is now chiefly observed at Michaelmas. St. Clement, an anchor with an arrow across the shank. St. Catherine, a wheel. St. Andrew, St. Andrew's cross. DECEMBER: St. Nicholas, a ring, and pastoral staff. Conception of the Virgin, a crown. St. Thomas, a hand, relative to the incredulity of St. Thomas, who declared that he would not believe in the resurrection of Christ, except he should thrust his hand into his side. Christmas tide or Yule, drinking horns, denoting the festivity of the season: the sword crossing the horn which stands singly is the indication of Innocent's day. In the preceding explanation, the emblems are arranged according to the months under which they appear in the engraving, and not with reference to the precise time at which their corresponding festivals are now observed.

In the middle ages, periodical times were marked rather by the occurrence of Saints' days or Festivals than by the days of the month: thus, the sittings of the Courts of Law, and the return of writs, were always regulated by the vigil, morrow, or octave of a particular festival; and by these the tenant paid his rent, either in money or goods, at Christmas, Candlemas, Lammass, Michaelmas, or Martinmas, according to the conditions of his tenure, without any reference to the day of the month on which each festival was kept. Amongst the old Term days, it is believed that May



Day is the only one which is not specifically distinguished by being associated with a festival or office observed by the Church. Though the derivation of Lammass, from *Loaf-mass*, be doubtful, it is evident that the period was originally determined by the celebration of some Mass or other religious office on that particular day. Candelmas, which is the anniversary of the Purification of the Virgin, obtained its popular name from churches and chapels being brilliantly lighted up with tapers, and from tapers and candles being blessed by the priest, on that day. It may here be observed that the word *Mass*, about the etymology of which there have been so many conjectures, is of Gothic origin; and that, in its primary meaning, it is nearly synonymous with the word *Mess*, as still used in the navy to signify a community of persons who take their meals together. The Latin word *Communio*, and the Saxon word *Hwosing*, are suggestive of the same idea as the word *Mass*. This brings us in regular concatenation to the "Kermess"—the Kirk or Church-Mass of the Dutch and Flemings, which is identical in its origin with the English Wake or Feast.

Of the Dutch and Flemish Kermess it is not our intention here to speak, further than it may serve to illustrate the origin of the English Wake or Feast. The Kermess is a kind of fair, which some attend for business, some for pleasure, and others for the sake of both. It obtained its name, Kermess—Kirk-mass, Church-mass—in consequence of its being originally held on the anniversary of the saint to whom the village or parish church was dedicated. The term "Kirk," which has erroneously been supposed to be derived from two Greek words, *κυριον οikos*—the House of the Lord—originally signified, with people of both Gothic and Celtic origin, a circle, a word which, in fact, is derived from the same root; and as their places of worship were usually Kirks, or Circles, of stones, the same term continued to be used to signify a place of worship after their conversion to Christianity. The Latin adverb *circum* (Kirk-um) is formed from the same root; and its component parts express the same idea as the English word "round-about"—Kirk, Celtic, a round or ring, and um, German, about.

The institution of the English Wake or Feast was in its origin precisely the same as the Dutch and Flemish Kermess; it was a festival held in commemoration of the saint to whom the parish church was dedicated. The difference in the names given to it—Wake and Feast—originated merely from the circumstance of the commemoration being chiefly observed in some places on the *Wake*, *Vigil*, or day preceding the saint's day, and in others on the day itself. Though this be the real origin of the Village Wake or Feast, yet, in later times, the day was not unfrequently changed for various reasons; such as its happening in the time of hay-making or of harvest, when its celebration might interfere with labours which could not be conveniently postponed; or from its happening immediately before or after the Wake of an adjacent parish; or *quodcumque aliud ratione*—"for any other reason why." Such is the origin of our Village Wakes and Feasts, which in the progress of society are gradually becoming obsolete.

It was in large country parishes that Wakes and Feasts were usually commemorated with the greatest display: for as on those days all the parishioners were required to attend the parish church, the same as at Christmas and Easter, there was, consequently, a great assemblage in the village where such church happened to be situated; and as the original institution partook more of the anniversary of a jovial roof-raising than of a day of mortification, the natural consequence was that those nominal Wakes and Feasts became Feasts indeed. On those occasions the inhabitants of the "church town" were in duty, or in interest, bound to entertain their relations, friends, and customers who lived at a distance. At such times every "responsible" man in the village made provision for a crowd of visitors; and even those whom he was most slightly acquainted with, from having rubbed shoulders with them at a fair, were allowed, or rather privileged, on the Feast-day, to partake of his hospitality. When on such occasions the tailor or the weaver gave beef, bread, and a cup of ale of a fortnight old to the shepherd who had looked after his flock of sheep on the distant common, he was merely re-paying an obligation. The smith, as a matter of course, was bound to entertain every man in the parish who kept a horse.

Philip Stubbes, in his "Anatomie of Abuses," thus speaks of Wakes and Feasts, at the time of the publication of his book, 1583:—

"This is their order therein; every town, parish, and village, some at one time of the year, some at another (but so that every one keep his proper day assigned and appropriate day to itself, which they call their Wake-day), useeth to make great preparation and ordnance for good cheer. To the which all their friends and kinsfolks, far and near, are invited; where is such gluttony, such drunkenness, such sabbatary and impletion used as the like was never seen. In so much as the poor men who bear the charges of these Feasts and Wakes are the poorer and keep the worse houses a long time after. And no marvel; for many spend more at one of these Wakes than in all the whole year besides. This makes many a man to thruple and pinch, to run into debt and danger, and finally brings many a one to utter ruin and decay." To the query "From whence sprang these Feasts and Wakes," the author, who was utterly averse to all the institutions of the old Church, and greatly inclined to consider them as Pagan relics, answers as follows:—"I cannot tell, except from the Pagans and Heathen people, who, when they were assembled together, and had offered sacrifices to their wooden gods and blockish idols, made feasts and banquets together before them, in honour and reverence of them, and so appointed the same yearly to be observed in memorial of them for ever. But whencesoever they had their exordium, certain it is that the devil was the father of them; to drown us in perdition and destruction of body and soul; which God foretend."

Wakes and Feasts were not exclusively devoted to eating and drinking; but were also celebrated with sports and pastimes. There was dancing to the pipe and tabor from morn till eve; and after dinner, when the spirits of the champions had been stimulated by beef and bread, and cakes and ale, the wrestling and the cudgel play commenced. The prize for the wrestling was frequently a ram. The miller, in Chaucer's "Canterbury Tales," seems to have been a frequent victor in those contests:—

The Miller was a stout carol for the nones,  
Full higge he was of brawn, and eke of bones;  
That proved well, for over all ther he came,  
At wrestling he would bear away the ram.

Millers, when they take to the sport, usually prove good wrestlers. One of the most celebrated of the Cumberland wrestlers, recorded in "Litt's Westiana," was a miller; and his skill in laying men on their back is said to have been chiefly derived from his practice of lifting sacks of flour.

What were called Church Ales appear to have been very nearly allied to Wakes and Feasts. Whatever might have been their original institution, they seem to have been held for the exclusive benefit of the Church. "The manner of them," says Philip Stubbes, "is thus: in certain towns where drunken Bacchus bears the sway, against Christmas and Easter, Whitsunday or some other time, the Church-wardens (for so they call them) of every parish, with the consent of the whole parish, provide half-a-score or twenty quarters of malt, whereof some they buy of the church stock, and some is given them of the parishioners

themselves, every one conferring somewhat, according to his ability; which malt being made into very strong ale or beer, is set to sale, either in the church, or some other place assigned to that purpose. Then when this *Nippitatum*, this Huff-cap (as they call it), and this nectar of life, is set abroad, well is he that can get the soonest to it, and spend the most at it, for he that sitteth the closest to it and spends the most at it, he is counted the godliest man of all the rest, and most in God's favour, because it is spent upon his Church forsooth: but who either for want can not, or otherwise will not stick to it, he is counted one destitute both of virtue and godliness. In so much, as yon shall have many poor men make hard shift for money to spend thereat. And good reason; for being put into this *Corban*, they are persuaded it is meritorious, and a good service to God. In this kind of practice they continue six weeks, a quarter of a year, yea, half a year together, swilling and gulling night and day, till they be as drunk as rats, and as blockish as heasts." The pretext for holding those Church Ales was, to obtain money for the repair of the church, to buy service-books, cups for the celebration of the sacrament, surplices for the parson, and such other necessities. "But," says Stubbes, "who seeth not that they bestow this money upon nothing less than in building and repairing of churches and oratories? For in most places lie they not like swine-cots (pig-styes)? Their windows rent, their doors broken, their walls fallen down, their roof all bare, and what not, out of order? Who seeth not the hook of God, rent, ragged, and all betorn, covered in dust, so as this epitaph may be writ with one's finger upon it, *Ecce nunc in pulvere dormio*—Behold, I sleep in dust!"

Fairs—like Wakes, Feasts, and Law-days—were, in former times, usually appointed to be held on the anniversary of some saint; and there is reason to believe that in many places, which in course of time had increased from small villages to considerable towns, the Wake or Feast was the origin of the customary fair. Fairs are of great antiquity; and it has been conjectured that, in the southern provinces of France, where we first find them expressly mentioned, they were merely a continuation of the *nundinae*, or periodical markets of the Romans. Sidenius Apollinaris, Bishop of Clermont, who died in 489, speaks of a fair, in one of his epistles addressed to the Bishop of Troyes. During the period of the Crusades, the principal Continental fairs, more especially in France, became of more importance than in former times, both from the number of pilgrims and fighting men who were accustomed to take them on their way to the Holy Land, and from the increased commerce of Europe with the East consequent on those expeditions. As marts for general traffic, the great European fairs, such as those of Troyes, Rheims, Bruges, and Ghent, began to decline from about the latter end of the fifteenth century. At these fairs the Merchant Princes of Italy had their factors, who not only bought and sold on account of their principals, but also acted as bankers, discharging bills of exchange drawn at distant places, and there made payable, and granting others to merchants, who, having disposed of their goods, were either returning homewards, or proceeding, for the purpose of making purchases, to some other fair. In England, at a time when it was unlawful to export the coin of the realm, a merchant intending to visit one of the great Continental fairs, provided himself with a bill of exchange, drawn by an Italian factor upon another agent of his own firm attending the fair in question, and there made payable at sight. As the merchant requiring the bill always paid the money for it, in the first instance, to the drawer, the acknowledgment of its receipt in the bill gave rise to the formal words, "value received" in modern bills of exchange on account of goods sold and delivered.

When we first hear of Fairs of considerable importance in this country, they were held either by a Royal grant or through ancient custom; and the profits arising from the tolls and the standings were usually enjoyed either by the feudal superior of the place where the fair was held, or by the abbot and brethren of some neighbouring monastery. As boroughs began to be incorporated, the right of holding fairs, and of enjoying the customary profits, was usually confirmed to the burgesses by charter. To each considerable fair there was attached a court of *pie-poudre*, for the prompt settlement of such disputes as might occur during its continuance. In the reign of Edward IV. an act was passed to prevent encroachments of the courts of *pie-poudre*, "which," says Barrington, in his "Observations on the more Ancient Statutes," "like most other courts, wanted to extend its jurisdiction, or, in other terms, the profits arising from it. As these lowest of courts of justice were under the direction of the steward, or auditor of him who had the grant of the fair, the steward, by way of drawing every litigation to his own court, supposed, by an ingenious fiction, that parties who never made any contract at the fair, and who perhaps lived at a great distance, had made the bargain in dispute within the limits of his jurisdiction, and, by this means, claimed consuance of the suit." The term *pie-poudre* (*pied pou-dreux*) literally signifies "dusty foot," and it is supposed to have been given to the court in question, in consequence of the dusty feet of the suitors. It may, however, be observed that "dusty-foot" was an old name for a pedlar; and there is reason to believe that the same class of people were called *pieds-poudreux* in old French, before such courts were instituted, or at least before they had acquired their distinctive name. If this opinion be correct, the pedlar, or travelling merchant, was a "dusty-foot," and the Court of Pie-poudre, a pedlar's court.

In the middle ages, the principal letter-carriers were traders attending fairs, and pilgrims visiting shrines, holy wells, or other places supposed to enjoy the special favour of some saint. In the 15th century pilgrimages were fashionable; and in those days a visit to the shrine of Saint Thomas à Becket, at Canterbury, or to the Chapel of Our Lady at Walsingham, was not much unlike a trip to Bath about the middle of the last century.

In former times, it was at fairs that the monks purchased many of the commodities which they required; and as they were also extensive landowners, it was on such occasions that they usually sold the produce of their farms, more especially their wool. Before the establishment of a fair and market at Hull, the Abbot of Meux or Melsa, in Holderness, appears to have attended Boston Fair. In the latter part of the reign of Henry III., the Abbot of Melsa was charged with having unlawfully sold, at Boston Fair, one hundred and twenty-nine sacks of wool to foreign merchants, at a time when the exportation of wool was forbidden to such merchants, in consequence of a dispute between the King of England and the Countess of Flanders. Even the canons of Bolton Abbey, in the retired vale of Wharfe, were accustomed to make purchases of wine, cloth, and other articles, at Boston Fair. This fair, and also that of Stourbridge, appear to have been attended by manufacturers of woollen cloth from the distant town of Kendal, who, after disposing of their goods, invested the proceeds in the purchase of various articles which either might be required in their own neighbourhood, or which might be likely to meet with a ready sale in the course of their journey homeward. Travelling merchants, in their progress to a distant fair, frequently received commissions at the abbeys and castles where they were accustomed to call, to make purchases on account of the owners and their dependants.

In the mythology of Greece and Rome, Apollo, typified as the Sun, was the great ruler of the year, and the personified seasons (*ἄραι*, Hours) were his attendants. In the cut (on page 58) he has twelve attendants, the personified hours of the artificial day.



## HINTS FOR THE TABLE.

BY M. SOYER.

AMONGST all the tribulations of the table, carving is not the least of them. "If you should, unhappily, be forced to carve at table," says Launcelot Sturgeon, in his "Essays, Moral, Philosophical, and Stomachic," "neither labour at the joint until you put yourself into a heat, nor make such desperate efforts to dissect it as may put your neighbours in fear of their lives; however, if any accident should happen, make no excuses, for they are only an acknowledgement of awkwardness." As an instance of this, we remember to have seen a man of high fashion deposit a turkey in this way on the lap of a lady; hut, with admirable composure, and without offering the slightest apology, he finished a story which he was telling at the same time, and then, quietly turning to her, merely said, "Madam, I'll thank you for that turkey!" My conscience will not allow me to swear to the authenticity of the fact; but, in the course of twelve months past, I have witnessed a very similar instance; only the party, not possessing the assurance of the fashionable above mentioned, did not continue the conversation, hut, in his nervous anxiety, endeavouring to replace it on the dish with vivacity, sent it rolling across the table to his right-hand neighbour; who, quickly perceiving the imminent danger in which he was placed, fortunately arrested its further progress with his fork. One hearty laugh of the remaining party terminated this scene of confusion.

After a short consideration, I found, by a most simple rule, and with the greatest facility, that a bird that would take ten minutes to carve very badly, may be done well in two or three, by the most inexperienced person. From this process a number of advantages may be derived; first, you may eat your dinner much hotter; secondly, you can make eight or ten pieces of a fowl, or any other bird, where previously great difficulty was experienced in making five or six, and each person will thereby be enabled to choose a favourite piece; and a large bird—such as turkey, poularde, capon, &c.—will be fit to re-appear on your table in a very inviting state. I must also observe that the birds are not in the least disfigured; hut, on the contrary, their appearance is much improved. Formerly, nothing was more difficult to carve than wild-fowl, the continual motion (when alive) of the wings and legs making the sinews almost as tough as wires, puzzling the best of carvers to separate them. My new method for small birds has quite abolished such a domestic tribulation, by separating, with a long pointed pair of scissors, the sinews which join the wing to the breast, and also joining the legs under the skin, as explained below for larger birds. The separation of the joints may be easily effected; and having thus detached the four principal parts, the carving, when roasted, will be very simple. But for the jointing of turkeys, geese, capons, &c., the tendon separator, made by Bramah and Prestage, Piccadilly, will be found a happy relief to carvers. Its object is to relieve carvers, more or less proficient; and must become indispensable for the use of all cooks and poulterers in disjoining the volatile species, previous to trussing, roasting, or boiling.

The simplicity of the operation will easily convince any one that the tendon-separator possesses all that is required to remove awkwardness in carving, the only necessity being to divide the tendons in the joints, the toughness of which is the difficulty to be overcome, and often abandoned to make a desperate cut at the bones: hence arise the accidents above mentioned.

When about separating the tendons, and otherwise dividing other parts of a fowl, you begin by turning the skin over the wings, and cutting the tendons of each of the joints; and then, by taking hold of the part commonly called the drumstick with your left hand, and the skin being already turned, you can easily get at the joint, by making it come out, to cut the tendons of each leg. On turning the separator with the points upwards, you give a cut at the breast-bone; and by holding the instrument with both hands, immediately after turning the points downwards, you also give a cut at the back-bone; and then, the four tendons being cut, the limbs are brought back to their former position. Then you introduce the instrument into the body at the other end of the bird, and with your left hand you take hold of the thigh-bone, which you also divide; and again turning the point downwards, you give another cut at the back-bone. With little practice, the cuts at the breast and back-bone are made without interfering in the least with the skin. Then you truss the bird in the common way; but a packing-needle and thread are to be preferred. When roasted, the appearance of the poultry is vastly improved by this simple operation. It looks more plump, on account of the sinews having lost their power of contraction whilst roasting; therefore, when the bird comes to table, the carver has merely to pass the knife in the usual manner to take up the wings and legs, and finds no resistance; the same at the breast and back, where it may easily be seen, whilst carving, that it has already been prepared.

Three minutes is about the time taken, by this new process, to cut into ten parts an ordinary fowl.

For a turkey or a goose the sinews are divided as above; and in the act of carving, instead of cutting the fillets in a straight line with the breast-bone, you separate them obliquely, and all other parts as usual.

Pheasants, ducks, and all wild fowl especially, must be prepared in a similar manner.

A hare or rabbit may also have the sinews and back-bone divided: to effect this, you lay the hare upon its back and give six cuts nearly through the back-bone, holding the separator with both hands, through the belly part; then you truss it for roasting. It should happen to be a very large hare, the fillets only are carved, and they ought to be cut in thin slices in an oblique direction, instead of straight along the back.

Respecting the carving of any description of joints, it may be more easily explained. For a saddle of mutton or lamb, proceed as follows:—Commence by passing your knife down the back, where nothing but the meat and skin holds it together, and from thence crosswise to the flap, serving a cutlet and a slice between to each person, continuing the same way through the saddle. You will thus carve the meat according to the grain, and produce fresh hot gravy for each person as you proceed carving. Should any remain, it is fit either to be sent cold to table, or dressed otherwise advantageously.

The saddle-back of mutton I prefer, is composed of the two loins and two necks, trimmed into the form of a double saddle, without interfering in the least with the legs and shoulders, which would cause a serious loss to the butcher.

A round of beef, when upon the table, must be carved with a regular round of beef knife (very sharp), in slices not exceeding the thickness of a crown piece, assisting each guest to a slice: also, give one-third fat, with a little of the carrot and turnip; but never dig the under-done part from the centre to oblige any one, for they that cannot eat from a joint well cooked and fairly carved, are not worthy of having one set before them. Some persons like them, when salted, to cut red quite through. I do not admire it; but it is done by adding two ounces of sal prunella and half a pound of saltpetre to every fifteen pounds of salt used in pickling. When a round of beef is very large, some persons place a tin tube in the centre to boil it. I do not think it a bad plan, as it causes it to cook more regularly.

Amongst the number of joints, boiled to serve cold at the large civic, agricultural or benevolent anniversary dinners, the round of beef is the most prominent, and commonly left standing in dishes to get cold, which are soon filled with the gravy that runs from it, particularly if a little over-done. To remedy this, the following expedient will prevent the meat losing so much of its succulence:—Fill two large tubs with cold water, into which throw a few pounds of rough ice; and when the round is done, throw it, cloth and all, into one of the tubs of ice water; let it remain one minute, when take out and put it into the other tub: fill the first tub again with water, and continue the above process for about twenty minutes; then set it upon a dish, leaving the cloth on until the next day, or until quite cold. When opened, the fat will be as white as possible, besides having saved the whole of the gravy. If no ice, spring water will answer the same purpose, but will require to be more frequently changed. The same mode would be equally successful with the aitchbone.

For the ribs or sirloin of beef, pass the knife between the chine-bone and the flesh, to about an inch in depth, but only to about the length you think sufficient to cut as many slices from as you may require; then, having a sharp knife, cut off the outside slice very thinly; hold your knife a little in a slanting direction, and continue cutting thin slices from the chine to the ends of the sirloin in the dish as you carve. If a slice from the fillet is required, turn it over with a couple of forks; carefully part some of the fat which covers it, if too much: then cut short slices in a slanting direction, as if from the breast of a fowl, instead of crosswise; for then, if clumsily carved and over-done, it has a strong resemblance to an old strap.

For a rump of beef, either roasted or stewed, always commence at the fattest end, carving in a slanting direction: by which means you will obtain a correct quantity of that delicate article, if even you should be carving for twenty people; whilst, by cutting straight across, some would have the greater proportion fat, and the remainder nothing but lean. Any other piece of beef rolled and stewed, and fillets of beef, as served for a remove, all require to be carved in a slanting direction.

For a fillet of veal, proceed in the same manner as directed for a round of beef. A loin of veal, if cut straight at the commencement, is entirely spoiled; but when carved slantingly from the best end, and eaten with its own gravy, nothing could be nicer; the remainder is then also very good cold. Even the kidneys ought to be served the same; and the breast, either roasted or stewed, requires the same style of carving.

For legs of mutton or lamb, I also proceed in a new way. The frill, which is placed upon the knuckle-bone, is not only intended to ornament the leg, but likewise to enable you to hold the bone with your left hand, and carving with the right, which would wonderfully facilitate the operation. Instead of cutting across the middle, which opens all parts at once, thus losing a great deal of the succulence, I commence carving at about two inches from the knuckle, beginning with the heel of the knife, drawing it along to the point, cutting six or eight slices at once, more or less if required: then pass the knife beneath the whole, detaching them from the bone, thus helping each person quickly, and with very hot meat. The gravy remaining in the meat will keep it moistened, in good order for cold; whilst, in the general manner, you have nothing but dry meat, or if under-done, on purpose for cold, the meat will always have a black appearance. This is my way of carving at home; but if objectionable to take the frill with the fingers, make use of the carving-fork. At home I never allow any gravy to be put into the dish, but served separately, in a boat; and if the meat is of good quality, and well roasted, it will supply an abundance of good gravy. If for the table of the wealthy, commence carving the leg nearer to the centre, but always in a slanting direction.

For shoulders of mutton or lamb to eat well and delicate, the fat and lean must be well mixed in serving; to accomplish which, the joint must be carved in a still more slanting direction than the legs, also beginning rather nearer to the knuckle.

For the necks and loins of mutton, never separate the bones of either with a chopper, or you will partially mutilate the meat, thus losing all the gravy in roasting, and frequently have great difficulty in carving; but separate the joints with a small saw, as neatly as possible, cutting in the direction you require to carve.

For ribs of lamb, which should be properly prepared for carving before being roasted, having the centre of the bones broken, with the chine-bone detached, to carve, you must, of course, follow the bones, which run rather slantingly, belping each person to a cutlet from the neck, with a slice from the breast, but not cut too thick. By following this plan, each person will have partaken of the breast, which, without contradiction, is the most delicate part (but which is most frequently left to be eaten when dry and cold); and if any remain, being evenly carved, it will be very presentable at table the next day.

To carve a ham, proceed as directed for the carving of a leg of mutton, commencing two inches from the knuckle, cutting very thin and delicate slices, slanting more and more as you proceed, or you will have nothing but fat left at the extremity.

To carve an ox tongue, stick your fork into the root, and cut a thin slice off, placing the heel of the knife upon it, which draw along to the point, thus taking the slice off in one cut, leaving it upon the dish, and serving the inner slices, cut in the same manner, but very thin and delicate; you will thus have carved the best part of it easily, without disfiguring the whole, still having a decent piece remaining to send up cold; but if you had commenced in the middle, you would at once spoil the appearance, and the remainder would eat dry when cold.

Nothing is more creditable to a carver, than leaving a piece of either meat, game, or poultry fit to re-appear at table in an inviting state.

## HAUNCH OF VENISON.

How to serve eighteen or twenty persons:—Take off the flat bone, previous to roasting, at the back of the loin, and pass the knife from the knuckle all along the lower part of the flap, which is left about two inches wide; then begin to cut in a slanting direction from the beginning of the loin, through the leg as far as the knuckle, without reserving a well for the gravy, and, in fact, it is better, as every slice you cut through the leg produces its own gravy, boiling hot, which unavoidably gets cold in the well formed the other way of carving. Do not omit to save some fat for the next day, as your hash or pie would be insipid without.

Haunch of mutton or lamb may be carved either way.

For necks of venison, pass your knife across the lower part of the ribs, about four inches below the thickest part: then cut slices in a slanting direction, not interfering with the bone, as previously explained for shoulders of mutton.

Never let your guests sit down to table without acquainting them beforehand with the bill of fare, that is, if the dinner be a ceremonious one, because the great variation placed on the table is to give a choice to the different taste of the company. By selecting a few favourite dishes, digestion is rendered more easy, being then aided by the fancy of each individual: but should you be helped of a dish which does not meet with your approval, though, at the same time, you feel yourself constrained by politeness to eat of it, your dinner is spoiled, and you do no justice to the bountiful supply of your Amphytrion.

In domestic cookery, it is necessary to know, that however humble the means



of the individual may be, the food should be varied daily, if possible. Never dine two days on the same joint, without dressing it each day in a different manner. A plain joint, hot one day, may be served cold the next, particularly in summer—it is then excusable; but, by all means, the third day make a hash, as follows:—

**HASH MUTTON.**—Cut about a pound and a half of meat into thin slices, using a small quantity of fat; lay them upon a dish, sprinkle a spoonful of flour, a tea-spoonful of salt, and a quarter ditto of pepper; place the meat in a stewpan, moisten with half a pint of water, or light broth if handy; add a little colouring to give it a nice brown colour. Place it upon the fire, allowing it to warm gently, stirring occasionally, simmering a quarter of an hour. Taste it more seasoning be required; if so, add a little, and serve very hot immediately. In making hash of any description, avoid having the keeping of it hot, or it would become greasy; and likewise prevent the hash boiling over the fire, which would cause the meat to eat hard and tough. To vary any description of hash, it may be served upon a large piece of buttered toast, or half a spoonful of chopped onions may be added with the flour and seasoning. Chopped parsley may also be added, with a spoonful of catsup, two of Harvey sauce, two of vinegar, or one of Chili vinegar; four nice green gherkins, in slices, may also be added at the time of serving. Some fresh mushrooms from the fields, cleaned, and stewed in the hash, is also a great improvement. A bay leaf also added imparts a pleasant flavour.

#### TO MAKE COFFEE ECONOMICALLY.

Boil your coffee not over-burnt; grind it at home, if possible; have a middle-sized filter, which holds a little more than a quart; pour about a pint of boiling water into the filter to heat it through, then empty it, and put a quarter of a pound of ground coffee on the filter; then put on the presser, and lastly the grating; then pour about half a pint of quite boiling water over it, put the cover on, and let it drain through. After three or four minutes, pour, by degrees, a pint and a half more boiling water, and, when well passed through, pour it from the filter into a very clean stewpan; set it on the corner of the fire; and, when a little white scum rises to the surface (not letting it boil), pour it a second time over the filter, and, when passed through, pour either into a silver *cafetière* or the cups. Serve boiling milk or cream in two small jugs; and white, or brown, or candied sugar. As soon as the coffee is poured from the coffee-pot, I put another quart of boiling water over it. This saves one ounce of coffee, by boiling it instead of water, and pouring it over as before.

#### TO MAKE A COLOURING OR BROWNING FROM SUGAR.

Put two ounces of white powdered sugar into a middle-sized stewpan, which place over a slow fire; when beginning to melt, stir round with a wooden spoon until getting quite black; when set it in a moderate oven, upon a trivet, for about twenty minutes; pour a pint of cold water over, let dissolve, place in a bottle, and use when required.

Never put salt, mustard, or any kind of sauces on your plate, without having previously tasted your food. It is not only a great breach of politeness towards your host, but an insult to the culinary artist; because that which is placed on the table as a made dish, is supposed to be seasoned to perfection. But, as very often this is not the case, then, after you have tasted it, you are at liberty to suit your own palate, which part of the human frame is as varied as the physiognomy.

When you help at table never give more than two or three slices of meat, cut thin. Carve everything in a slanting direction. A good carver ought never to ask if any person likes their meat well done or underdone, as you disfigure the joint at once: such fancies cannot be tolerated, except at the tables of the wealthy; for the million, it is a waste of £70 a year, when only seven or eight in family.

Have your vegetables, no matter how plainly dressed, always well done; the cruddiness of such aliments is unwholesome, and apt to destroy the coating of the stomach, that being the most delicate part of the digestive organs. Be also contented with one sort of vegetable on your plate at a time, potatoes excepted.

The greatest compliment a guest can pay to his host, is to ask to be served a second time of the same dish, though not above half the quantity first served should be given.

If by chance you should spill any sauce or gravy in carving, do not apologise; it is only calling the attention of the company to your awkwardness, which, without remark, might pass unnoticed.

Never cut up a fowl, or any kind of bird, at once, without knowing how many persons are going to partake of it: the proper manner is to ask each person, and then to help them separately.

Never remove any dish which has been placed on the table by a servant, however awkwardly it may be set. It is not your business to serve at your own table; rather let your servant look awkward than yourself, by his placing it over and over again before it is right.

Never press any one to take more food or wine than they appear to wish; it annoys your guests, and, whilst you make yourself too cheap, you also make it too common.

Never put more than one wine-glass before each guest at the commencement of dinner; have the others ready, and place them as required. It saves confusion; and often relieves a person from great distress, who, by chance, may not be acquainted with the different glasses which each sort of wine requires.

#### ON THE MANAGEMENT OF WARDS CASES FOR THE GROWTH OF FERNS, &c.

It is often asked, what are the best species of Fern, &c., to form a lasting, graceful, and effective group for those elegant little cases now so frequently seen in the windows of most houses? To this we reply, that the following arrangements will produce all that can be desired:—For the centre, a *Chamaecrops humilis*, the dwarf palm of the South of Europe; covering the ground at the base of its stem are the delicate and beautiful lily ferns, *Thymophyllum Tunbridgei* and *H. Wilsoni*; while *Adiantum capillus-veneris*, *A. formosum*, *Asplenium marinum*, *Pteris longifolia*, *Scopolopendrum vulgare*, *Anemia fraxinifolia*, *Cassebeeria hastata*, and the beautiful *Trichomanes speciosa* are other forms of ferns whose variously shaped fronds contrast well with one another. Under the shadow of the ferns, several *Juncagernannia* grow luxuriantly; and the *Oxalis acetosella* thrives wonderfully in the company of its cryptogamic neighbours, while *Lycopodium denticulatum* and *L. stoloniferum* surround the whole with a perennial hedge of verdure. Besides these, *Maxillaria rufescens*, an epiphytical orchid, has attached itself to the rough bark of a piece of suspended elder branch; and, in order that no space may remain unemployed, the husk of a cocoa-nut has been filled with earth, and hung in the dome at the top, and from this may be seen descending the graceful fronds of various pendulous ferns and Lycopodiums.

When the case is small and close, a single watering at the time of setting the plants will generally be sufficient for nine or twelve months, or even longer. When the case is large, however, a freer application of water will be necessary.

#### GENERAL POSTAL REGULATIONS, &c.

**RATES OF POSTAGE.**—All letters from one part of Great Britain to another (including the Local Penny Posts and the London Twopenny Post) are charged, if prepaid, and not

Exceeding half an ounce	..	..	..	..	1d.
Exceeding half an ounce, and not exceeding one ounce	..	..	..	..	2d.

and so on, at the rate of 2d. for every additional ounce or fraction of an ounce. Unpaid and unstamped letters are charged double postage on delivery.

**HOURS OF POSTING FOR THE EVENING MAILS.**—The Receiving-Houses close at 5 30 P.M.; but letters are received for the evening's dispatch until 6 P.M., if an extra penny stamp is affixed. The Branch Post-offices at Charing Cross, Old Cavendish-street, and 108, Blackman-street, Southwark, receive letters until 6 P.M., and until 7 P.M. by affixing an additional penny stamp. At the Branch Post-Office in Lombard-street, the box remains open without additional fee until 6 P.M., and until 7 P.M. by affixing a penny stamp. At the General Post-Office in St. Martin's-le-Grand until 6, free; and until 7, by payment of the extra charge as at Lombard-street. From 7 to half-past 7 P.M., letters may be posted at the General Post-office upon payment of a fee of sixpence each, which must, as well as the postage, be pre-paid. Letters intended to pass by outward mails to foreign parts must be posted at the above hours.—N.B. Newspapers for the evening mails must be put into the Receiving-Houses before 5 P.M., the Branch offices before 5 30, or General Post Office before 6 P.M. From 6 P.M. to 7 30, on payment of one-halfpenny late fee; except newspapers for foreign parts, which must be posted at the General Post-Office and Branch Offices before 6 P.M., and at the Receiving-Houses before 5 P.M..

**MOANING MAILS** are forwarded to most of the principal towns in England and Wales, and to all parts of Ireland and Scotland, for which the letter-boxes at the Receiving-Houses will be open till 7 A.M. for newspapers, and 8 A.M. for letters; and at the Branch Offices, Charing-cross, Old Cavendish-street, and the Borough, for newspapers until half-past 7 A.M., and for letters until 8 A.M. At the General Post-Office and the Branch Office in Lombard-street, the boxes will close for newspapers at a quarter before 8 A.M., and for letters at half-past 8 A.M.

**ANY SINGLE BOOK OR PAMPHLET** can now be sent through the Post-Office to any part of the United Kingdom if not exceeding 16 oz. in weight, and open at both ends, by affixing six postage stamps; if above 16 oz. 1s., and 6d. for every additional pound or fraction of a pound. The Postmaster-General does not guarantee the delivery of books and pamphlets with the same accuracy and regularity as newspapers and letters, but in no case will the delivery be delayed more than 24 hours after the usual post.

**BRITISH AND COLONIAL PAPERS** between British Colonies, without passing through the United Kingdom, to be free; except that 1d. may be allowed as a gratuity to the master of the vessel conveying them.

**NEWSPAPERS, BRITISH, FOREIGN, OR COLONIAL**, passing between British or Colonial and Foreign Ports, and through the British post, to pay 2d.; if not through the British post, 1d.

**NEW POSTAGE STAMPS** intended principally for the pre-payment of foreign letters have been issued. They are of the value of one shilling each, the colour being green, and the form octagonal, to distinguish them easily from the smaller denomination of postage stamps at present in use. These stamps may be used for inland as well as foreign postage, but they are chiefly intended for the postage of letters to the United States, India, China, the West Indies, New South Wales, New Zealand, and other places to which the postage is one shilling.

**PACKAGES** which in length, breadth, or width exceed twenty-four inches, cannot be forwarded by post between any places within the United Kingdom; except, however, petitions or addresses to her Majesty, or petitions to either House of Parliament forwarded to any Member of either House, or printed votes or proceedings of Parliament, or letters to or from any Government offices or departments.

**MONEY ORDERS.**—With a view to simplicity and economy in the accounts of the Money Order Office, it has been found necessary to lay down the following rules:—1. Every money order issued on or after the 6th October, 1848, must be presented for payment before the end of the second calendar month after that in which it was issued (for instance, if issued in October, it must be presented for payment before the end of December), otherwise a new order will be necessary, for which a second commission must be paid. 2. As already notified to the public, if an order be not presented for payment before the end of the twelfth calendar month after that in which it was issued (for instance, if issued in October and not presented before the end of the next October), the money will not be paid at all. 3. As, after once paying a money order, by whomsoever presented, the office will not be liable to any further claim, the public are strictly cautioned a. To take all means to prevent the loss of the money order. b. Never to send a money order in the same letter with the information required on payment thereof. c. To be careful, on taking out a money order, to state correctly the Christian name as well as the surname of the person in whose favour it is to be drawn. d. To see that the name, address, and occupation of the person taking out the money order are correctly known to the person in whose favour it is drawn. 4. Neglect of these instructions will lead to delay and trouble in obtaining payment, and even risk the loss of the money. These instructions, together with some others of minor importance, will be found printed on every money order.

#### THE LAW OF BANKRUPTCY.

The new Act of Parliament to empower the Commissioners of the Court of Bankruptcy to order the release of bankrupts from prison in certain cases, which took effect on the 31st of August, 1848, has just been printed (11 and 12 Victoria, cap. 86). By this act it is provided that where any person has been adjudged bankrupt, and has surrendered to the fiat, and has obtained his protection from arrest, pursuant to the practice in bankruptcy, if such person shall be in prison at the time of obtaining such protection, any Commissioner acting under such fiat may order his immediate release from prison, either absolutely, or upon such condition as such Commissioner shall think fit, which release is not to affect the rights of creditors detaining him in prison. The second clause is an important one:—“And be it enacted that if any bankrupt whose last examination shall have been adjourned *sine die*, or whose certificate shall have been suspended or refused, shall be in execution, or be taken in execution, under a *capias ad satisfaciendum* at the suit of any creditor who might have proved under the fiat and detained in prison, any Commissioner acting under his fiat may order his release, after he shall have undergone such term of imprisonment, not exceeding two years, as to such commissioner may seem a sufficient punishment for such offence as he may appear to such Commissioner to have been guilty of.”



## THE QUEEN AND ROYAL FAMILY.

**THE QUEEN.**—VICTORIA, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith, was born May 24th, 1819; succeeded to the throne, June 20th, 1837, on the death of her uncle, King William IV.; crowned, June 28th, 1838, and married, February 10th, 1840, to his Royal Highness Prince Albert. Her Majesty is the only daughter of his late Royal Highness Edward Duke of Kent, son of King George III.

His Royal Highness Francis Albert Augustus Charles Emanuel Busici, DUKE OF SAXE, PRINCE OF COBURG AND GOTH, K.G., Consort of her Majesty, born August 26th, 1819.

Her Royal Highness Victoria Adelaide Mary Louisa, PRINCESS ROYAL, born November 21st, 1840.

His Royal Highness Albert Edward, PRINCE OF WALES, born November 9th, 1841.

Her Royal Highness Alice Maud, born April 25th, 1843.

His Royal Highness Alfred Ernest Albert, born August 6th, 1844.

Her Royal Highness Princess Helena Augusta Victoria, born May 25, 1846.

Her Royal Highness Princess Louisa Carolina Alberta, born March 18, 1848.

**THE QUEEN DOWAGER.**—Amelia Adelaide Louisa Theresa, sister to the reigning Duke of Saxe Meiningen, born August 13th, 1792; married July 11th, 1818; crowned September 8th, 1831.

## PRINCES AND PRINCESSES.

Ernest Augustus, DUKE OF CAMBRIDGE, in Great Britain, and KING OF HANNOVER, uncle to her Majesty, born June 5th, 1771, married, August 29th, 1815. Issue, George Frederick.

Adolphus Frederick, DUKE OF CAMBRIDGE, uncle to her Majesty, born February 24th, 1774; married, May 2nd, 1818, her Serene Highness Augusta Wilhelmina Louisa, youngest daughter of Frederick, Landgrave of Hesse. Issue, three children. MARY, Annt to her Majesty, born April 25th, 1776; married, July 22nd, 1816, her cousin, the Duke of Gloucester, deceased.

Victoria Mary Louisa, DUCHESS OF KENT, born August 17th, 1786; married, in 1818, the Duke of Kent (who died January 23rd, 1820); her Majesty's mother.

Augusta Wilhelmina Louisa, DUCHESS OF CAMBRIDGE, niece of the Landgrave of Hesse, born July 25th, 1795; married, in 1818, the Duke of Cambridge, by whom she has issue, George William, Augusta Caroline, and Mary Adelaide.

George Frederick Alexander Charles Ernest Augustus, K.G., only child of the King of Hanover, Prince Royal of Hanover, cousin to her Majesty; born May 27th, 1819; married, February, 1843, Princess Mary of Saxe Altenberg, and has a son.

George Frederick William Charles, K.G., son of the Duke of Cambridge, cousin to her Majesty, born March 26th, 1819.

Augusta Caroline Charlotte Elizabeth Mary Sophia Louisa, daughter of the Duke of Cambridge, and cousin to her Majesty, born July 19th, 1822; married, June 28th, 1843, Frederick, Hereditary Grand Duke of Mecklenburg Strelitz.

Mary Adelaide Wilhelmina Elizabeth, daughter of the Duke of Cambridge, and cousin to her Majesty, born November 27th, 1832.

## THE QUEEN'S HOUSEHOLD.

Lord Great Chamberlain .. ..	Lord Willoughby D'Eresby
Lord Steward .. ..	Earl Fortescue
Lord Chamberlain .. ..	Marquis of Breadalbane, K.T.
Vice-Chamberlain .. ..	Lord E. Howard
Master of the Horse .. ..	The Duke of Norfolk
Clerk Marshal and Chief Equerry ..	Lord Alfred Paget
Treasurer of the Household .. ..	Lord Marcus Hill
Comptroller of the Household .. ..	Lord R. Grosvenor
Lord High Almoner .. ..	Archbishop of York
Sub-Almoner .. ..	Rev. E. Goodenough, D.D.
Clerk of the Closet .. ..	Bishop of Norwich
Master of the Buckhounds .. ..	Earl Granville
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# THE ILLUSTRATED LONDON ALMANACK FOR 1849.

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First Clerk of Records, E. Edwards, Esq.

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Elected September 29th—Sworn in November 9th.  
The Right Honourable Sir James Duke, M.P., Farringdon Without, 1840.

**SHERIFFS.**  
Elected 24th June—Sworn in 28th September.

Thomas Quested Finnis, Esq. | Jacob Emanuel Goodhart, Esq.

**UNDER SHERIFFS.**  
Thos. France, Esq. | D. W. Wire, Esq.

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THE FOLLOWING HAVE NOT PASSED THE CHAIR.

Farncomb, Thomas, Esq., Bassishaw; Griffin's Wharf, Southwark	..	1840
Musgrove, John, Esq., Broad-street; 18, Old Broad-street	..	1842
Hunter, William, Esq., Coleman-street; 10, Finsbury Circus	..	1843
Challis, Thomas, Esq., Cripplegate; 32, Wilson-street, Finsbury	..	1843
Sidney, Thomas, Esq., M.P., Billingsgate; 8, Ludgate-hill	..	1844
Moon, F. G. Esq., Portsoken; 20, Threadneedle-street	..	1844
Salomons, David, Esq., Cordwainer, 1, Shorter's-court	..	1848
Finnis, Thomas, Esq., Tower, Tower-street	..	1848
Lawrence, William, Esq., Bread-street, 30, Bread-street	..	1848

THE FOLLOWING HAVE PASSED THE CHAIR.

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Key, Sir John, Bart., Langbourn; 3, Abchurch Lane	..	1823
Laurie, Sir Peter, Knt., Aldersgate; 7, Park-square, Regent's-park	..	1826
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# THE ILLUSTRATED LONDON



LONDON

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198, STRAND.



# INTRODUCTION.

THE First ILLUSTRATED LONDON ALMANACK was published for the year 1845, and it has appeared annually since that time.

All those divisions of the Almanack for 1846, relating to the Calendar, to Astronomy, and to Science in general, were entrusted to JAMES GLAISHER, Esq., F.R.S., F.R.A.S., of the Royal Observatory at Greenwich, and all relating to these subjects, since that time, have been under his superintendence.

THE NOTES on the MONTH, on the fourth page of every Month, are by Mrs. LONDON.

It is thought better to give additional information each year than to repeat Tables or Particulars which are the same for several years together; therefore, for explanations, &c., we refer to preceding Almanacks. In this Almanack, at page 52 will be found a very useful Table, shewing the time of the Sun's rising and setting, and the length of the day at all places in Great Britain and Ireland, for every 10th day of the year; and at page 54 will be found a clear description of the heavens, by which means the names of the Stars, &c. may very readily be learned. Both these tables will answer for several years.

## ON THE METEOROLOGY OF ENGLAND.

THE geographical position of England being distant both from the Equator and the Pole, together with the circumstance of being an Island situated with the great European continent on the east, open to extensive oceans on the south-west, the west, and the north, and under the influence of the great cold from the north—all operate to cause the weather to be more variable than in countries on the Continent. In England, in fact, the effects of distant phenomena are registered frequently; and without a well-combined system of uniform observations, extending over the surface of the globe, and deduction of their results, we cannot hope to trace the source of many recorded phenomena, and, in fact, of none except those only of a local nature.

The ever-varying state of the weather of Great Britain has led to much individual enquiry; but it has failed to receive that combination of labour and that support which is necessary even to the determining the source to which local disturbances may be traced, and the extent of local laws. Yet, when we consider its practical importance to the physician, to the agriculturist, to the navigator—in fact, to all classes of persons—it seems somewhat strange that Meteorology has met with this neglect.

On the state of the atmosphere, combined in various ways with local circumstances, epidemic complaints seem to depend; and it is highly probable that the present epidemic of cholera is mainly attributable to the peculiarities of the atmosphere which have lately been prevalent, combined with local circumstances. To render our Almanack the most generally useful, we have been anxious to collect the meteorological particulars to the present time, including those when a particular disease existed, as we know that many medical gentlemen, and others, are desirous to elucidate the connexion which may have existed between this disease and the weather.

The following meteorological particulars, derived from the published volumes of the Greenwich observations, and from the meteorological reports furnished by the Astronomer Royal to the Registrar-General, will not only be useful for this and other similar investigations, but will exhibit the full particulars of an English year:—

MEAN MONTHLY READING OF THE BAROMETER AT GREENWICH.

MONTHS.	YEARS.									
	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	
	In.	In.	In.	In.	In.	In.	In.	In.	In.	
January . .	29.702	29.901	29.674	29.891	29.704	29.671	29.768	29.816	29.771	
February . .	29.697	29.876	29.473	29.498	29.840	29.849	29.782	29.517	30.106	
March . . .	29.784	29.747	29.758	29.710	29.795	29.655	29.882	29.505	29.915	
April . . .	29.731	29.914	29.687	30.000	29.696	29.589	29.653	29.589	29.517	
May . . .	29.731	29.782	29.664	29.945	29.712	29.779	29.764	29.926	29.766	
June . . .	29.801	29.901	29.700	29.814	29.775	29.866	29.805	29.642	29.868	
July . . .	29.716	29.820	29.826	29.753	29.769	29.757	29.924	29.836	29.789	
August . .	29.768	29.869	29.819	29.677	29.729	29.777	29.876	29.732	29.841	
September .	29.624	29.715	30.017	29.881	29.801	29.824	29.825	29.832	29.767	
October . .	29.436	29.849	29.604	29.562	29.847	29.516	29.803	29.646	*	
November .	29.072	29.599	29.718	29.690	29.575	29.821	29.905	29.785		
December .	29.374	30.007	30.243	29.855	29.658	29.697	29.778	29.807		

These numbers show the exact length of the column of mercury which has been balanced by the atmosphere in every month. The length of this column depends almost wholly upon the amount of air and of water mixed with it in the invisible shape of vapour, and every variation in the volumes of air and water is shown by a corresponding variation in the reading of the barometer. We may briefly remark, that if the column of mercury in a barometer be weighed in pounds, such weight would represent the pressure of a column of atmosphere of the same dimensions reaching from the place of the barometer, to the top of the atmosphere.

If at any time there be a diminution of pressure at one place, there must be a corresponding increase at some other place; the less portion of the atmosphere is not annihilated: for instance, if at any place the decrease of the reading of the barometer be one inch, this implies that one-thirtieth of the whole atmosphere is removed from that place—there must either be an increase at some other place of one inch in the reading of the barometer, or that portion of the atmosphere must be spread over many places; hence one of the necessities of uniform and systematic observations taken simultaneously at many places.

MEAN MONTHLY TEMPERATURE OF THE AIR AT GREENWICH.

MONTHS.	YEARS.									
	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	
	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	
January . .	33.6	32.9	39.9	39.1	38.3	43.7	35.1	34.6	40.1	
February . .	35.3	40.8	36.0	35.2	32.7	43.9	35.4	43.4	43.2	
March . . .	46.2	44.9	42.9	41.5	35.2	43.3	41.0	43.8	42.5	
April . . .	47.0	45.2	47.1	51.7	46.3	47.1	45.3	47.6	43.2	
May . . .	56.8	53.2	52.2	52.9	49.4	54.6	56.4	59.7	54.0	
June . . .	56.4	62.9	56.3	60.7	60.7	65.3	58.0	58.5	57.9	
July . . .	57.8	60.2	60.9	61.4	59.8	64.5	65.4	61.5	62.1	
August . .	60.5	65.4	62.1	57.7	57.3	63.2	62.1	58.5	62.9	
September .	58.1	56.4	59.5	56.9	53.6	60.1	54.3	55.8	58.8	
October . .	48.8	45.4	48.0	49.5	50.2	50.5	52.9	51.6		
November .	42.7	42.8	43.8	44.0	45.8	46.0	46.9	43.8		
December .	40.5	45.0	43.9	33.0	41.7	32.9	42.8	44.0		

\* On reading these numbers, the figures to the right of the point show the parts of an inch; thus, 29.697 is to be read 29 inches, 6 tenths, 9 hundredths, and 7 thousandths of an inch.

MEAN DAILY RANGE OF TEMPERATURE OF THE AIR AT GREENWICH.

MONTHS.	YEARS.									
	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	
	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	
January . .	11.1	6.4	7.9	8.7	6.4	7.7	8.8	8.3	10.9	
February . .	9.1	10.4	7.5	10.5	8.7	8.3	11.6	10.7	12.9	
March . . .	17.5	10.9	12.4	12.1	11.1	12.7	16.0	14.3	13.8	
April . . .	16.5	16.1	15.4	21.0	16.3	13.1	18.3	16.7	16.0	
May . . .	21.3	16.7	14.7	18.6	14.2	16.6	21.2	30.5	16.3	
June . . .	18.8	22.2	15.2	19.9	18.2	22.5	19.4	17.7	20.6	
July . . .	15.6	17.7	15.6	16.2	14.9	17.5	23.3	22.5	22.6	
August . .	16.3	20.3	16.4	15.4	14.8	15.5	21.0	18.5	20.2	
September .	16.0	12.8	17.4	15.3	15.6	18.0	18.7	20.9	17.5	
October . .	11.7	13.2	12.8	12.4	13.3	10.4	14.0	16.5		
November .	10.7	7.9	10.2	7.4	10.9	8.0	11.4	15.7		
December .	9.4	8.2	6.6	5.4	9.9	10.3	9.7	12.7		

MEAN MONTHLY TEMPERATURE OF EVAPORATION AT GREENWICH.

MONTHS.	YEARS.									
	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	
	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	
January . .		31.9	38.8	38.7	37.4	42.5	34.5	32.6	38.6	
February . .		38.7	35.0	33.9	31.4	42.2	33.9	41.6	41.4	
March . . .	44.1	42.9	41.2	40.2	33.4	41.1	37.9	41.6	39.8	
April . . .	44.2	41.9	45.0	47.6	43.5	44.8	41.4	44.5	41.5	
May . . .	53.6	49.5	50.4	49.1	47.0	51.0	52.1	53.0	49.0	
June . . .	52.6	57.4	53.5	55.0	57.5	59.7	53.4	54.4	48.7	
July . . .	54.5	59.9	58.2	57.3	56.7	59.8	60.0	57.6	56.2	
August . .	57.4	61.2	59.5	54.6	54.7	59.8	59.5	55.2	57.3	
September .	55.8	54.8	56.9	54.7	51.5	57.1	51.8	53.2	54.6	
October . .	47.1	43.9	46.4	43.1	48.4	48.8	50.9	49.3		
November .	41.5	41.9	42.4	43.1	44.4	44.7	45.6	41.7		
December .	38.3	44.2	43.0	32.2	40.0	31.9	41.6	42.3		

MEAN MONTHLY TEMPERATURE OF THE DEW POINT.

MONTHS.	YEARS.									
	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	
	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	
January . .		30.0	37.3	36.1	35.9	40.8	33.6	31.7	36.4	
February . .		38.4	33.4	31.8	28.5	39.9	31.0	38.8	38.8	
March . . .	40.7	38.9	36.6	30.0	38.3	33.5	38.5	36.5		
April . . .	40.7	38.3	42.6	44.2	40.6	42.3	37.2	41.4	39.1	
May . . .	50.8	46.7	48.8	46.1	44.6	48.0	48.6	48.6	43.9	
June . . .	49.2	54.3	51.2	51.6	55.2	56.0	49.8	51.6	48.4	
July . . .	51.6	53.2	56.3	54.7	54.4	56.5	56.4	54.6	51.1	
August . .	55.0	58.9	57.8	52.3	52.6	57.5	56.1	52.8	53.0	
September .	53.7	53.5	54.9	53.2	49.7	54.9	49.7	50.9	51.0	
October . .	45.1	42.4	44.7	46.0	46.5	47.2	49.1	47.4		
November .	39.8	40.4	40.9	41.9	42.8	43.1	44.1	38.8		
December .	35.2	43.2	42.0	30.0	37.7	29.4	39.8	40.1		

AMOUNT OF RAIN FALLEN IN EVERY MONTH.

MONTHS.	YEARS.									
	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	
	In.	In.	In.	In.	In.	In.	In.	In.	In.	
January . .	2.1	1.0	1.4	2.4	2.4	2.8	1.4	1.2	1.6	
February . .	1.3	1.1	2.4	2.3	0.9	1.5	1.4	2.6	2.2	
March . . .	1.4	1.9	0.5	2.9	1.5	0.9	0.8	3.1	0.5	
April . . .	1.9	0.4	1.7	0.4	0.6	3.1	1.0	3.4	2.2	
May . . .	2.1	2.1	3.8	0.4	2.2	1.5	1.4	0.4	3.9	
June . . .	2.7	1.0	1.3	1.8	1.9	0.5	1.5	3.5	0.2	
July . . .	3.6	3.0	2.4	2.8	1.9	1.5	0.7	2.0	2.1	
August . .	2.2	1.8	3.6	2.0	3.1	4.0	2.1	4.3	0.5	
September .	4.0	4.0	0.5	1.2	2.1	1.8	1.6	2.4	3.3	
October . .	6.0	1.4	4.3	4.0	1.4	5.1	2.0	3.5		
November .	3.7	4.3	2.3	4.3	2.4	1.5	2.0	1.2		
December .	2.4	0.7	0.4	0.4	2.0	1.1	2.0	2.6		

NUMBER OF DAYS ON WHICH RAIN HAS FALLEN IN EVERY MONTH.

MONTHS.	YEARS.									
	1841.	1842.	1843.	1844.	1845.	1846.	1847.	1848.	1849.	
January . .	0	7	11	13	14	13	14	9	17	
February . .	19	11	15	16	9	7	11	19	10	
March . . .	13	14	7	17	9	14	6	21	8	
April . . .	15	6	15	5	12	16	11	23	19	
May . . .	12	14	23	8	20	8	12	3	15	
June . . .	9	6	15	10	13	5	10	20	5	
July . . .	18	14	14	13	19	10	4	18	12	
August . .	15	8	12	11	17	11	11	29	3	
September .	14	17	6	9	10	7	11	14	15	
October . .	25	6	22	18	8	20	13	24		
November .	14	20	20	16	18	8	10	12		
December .	18	9	10	9	13	10	11	14		

As Meteorology affects all classes in every condition of life—the agriculturist the mariner, the invalid—it is particularly to the benefit of these individuals that the labour of the meteorologist is directed, and with this view he must work untiringly onward. If epidemics are produced by atmospheric causes, it is to the successful cultivation of medical-meteorology alone we must look for guidance against them and the mitigation of their virulence, and thus improve the public health and lessen the individual suffering of the invalid.



# THE ILLUSTRATED LONDON ALMANACK FOR 1850.

## ON THE CALENDAR.

### THE PRINCIPAL ARTICLES OF THE CALENDAR, FOR THE YEAR OF OUR LORD 1850.

	Gregorian, or New Calendar.	Julian, or Old Calendar.
Dominical Letter	F	A
Golden Number	8	8
Roman Indiction	8	8
Solar Cycle	11	11
Epact	17	28

(For remarks upon these articles, see the Almanack for the year 1847.)

### CORRESPONDENCE OF THE YEAR 1850 WITH ANCIENT ERAS.

Being, till September 6th, the latter part of the 5610th, and from September 7th the beginning of the 5611th year since the creation of the world, according to the Jews.

Being the 6563rd year of the Julian Period.

Being the 2603rd year since the Foundation of Rome (according to Varro).

Being the 2597th year since the era of Nabonassar, which has been assigned to Wednesday, the 26th of February, of the 3967th year of the Julian Period, which corresponds, according to chronologists, to the 747th, and, according to astronomers, to the 746th year before the birth of Christ.

Being the 2626th year of the Olympiads, or the second year of the 657th Olympiad will begin in July, 1850, if we fix the era of the Olympiads at 775½ years before Christ, or at or about the beginning of July of the year 3938 of the Julian Period.

Being the latter part of the 1266th, and the beginning of the 1267th year (of twelve lunations) since the Hegira, or flight of Mahomet, which it is generally supposed took place on the 12th of July, in the year 622 of the Christian era. The year 1266 commenced on the 16th of November, 1849, and ends on the 5th of November, 1850.

## CALENDAR OF THE JEWS FOR THE YEAR 1850.

5610.	1849.	NEW MOONS AND FEASTS.
Teheth .. 1	December .. 16	Rosh Hodesh, or New Moon
" .. 10	" .. 25	Fast: Siege of Jerusalem
	1850.	
Schebat .. 1	January .. 14	New Moon
Adar .. 1	February .. 13	New Moon
" .. 13	" .. 25	Fast of Esther
" .. 14	" .. 26	Feast of Purim*
" .. 15	" .. 27	Schuschan Purim
Nisan .. 1	March .. 14	New Moon
" .. 15	" .. 28	Beginning of the Passover*
" .. 16	" .. 29	Second Feast, or morrow of Passover*
" .. 21	April .. 3	Seventh Feast*
" .. 22	" .. 4	End of the Passover
Ijar .. 1	" .. 13	New Moon
" .. 18	" .. 30	Lag Beomer
Sivan .. 1	May .. 12	New Moon
" .. 6	" .. 17	Feast of Weeks of Pentecost*
" .. 7	" .. 18	Second Feast*
Tamuz .. 1	June .. 11	New Moon
" .. 17	" .. 27	Fast for the taking of the Temple*
Ab .. 1	July .. 10	New Moon
" .. 9	" .. 18	Fast for the burning of the Temple*
Elul .. 1	August .. 9	New Moon
5611.		
Tisri .. 1	September .. 7	Feast for the New Year*
" .. 2	" .. 8	Second Feast for the New Year*
" .. 3	" .. 9	Fast of Gedaliah
" .. 10	" .. 16	Fast: Reconciliation, or Atonement*
" .. 15	" .. 21	Feast of the Huts or Tabernacles*
" .. 16	" .. 22	Second Feast of the Huts*
" .. 21	" .. 27	Feast of Palms or Branches
" .. 22	" .. 28	End of Hut, or Congregational Feast*
" .. 23	" .. 29	Rejoicing for the discovery of the Law*
Marchesvan .. 1	October .. 7	New Moon
Kislev .. 1	November .. 6	New Moon
" .. 25	" .. 30	Consecration of the Temple
Tebeth .. 1	December .. 6	New Moon
" .. 10	" .. 15	Fast for the Siege of Jerusalem
Schat .. 1	January .. 4	New Moon

The Anniversaries marked with an asterisk (\*) are to be strictly observed. The Jewish Year generally contains 354 days, or 12 Lunations of the Moon; but, in a cycle of 19 years, an intercalary month (Veadar) is 7 times introduced, for the purpose of rendering the average duration of the year quite or nearly correct.

## MOHAMMEDAN CALENDAR FOR THE YEAR 1850.

Year.	Names of the Months.	Month begins.
Hegiri; 1266.	Safar	December 17, 1849.
"	Rebia 1	January 15, 1850.
"	Rebia 11	February 14, "
"	Gomedhi 1	March 15, "
"	Gomedhi 11	April 14, "
"	Rejeb	May 13, "
"	Scheban	June 12, "
"	Ramedan (Month of Fasting)	July 11, "
"	Schewale (Bairam)	August 10, "
"	Dsu'l-Kadah	September 8, "
"	Dsu'l-hjajah	October 8, "
Hegiri; 1267.	Moharrem 1	November 6, "
"	Safar 1	December 6, "
"	Rebia	January 4, 1851.

(For remarks on the Mohammedan year, see the Almanack for the year 1848.)

## SIGNS OF THE ZODIAC.

Spring Signs {	1 ♈ Aries	Autumn Signs {	7 ♎ Libra
	2 ♉ Taurus		8 ♏ Scorpio
	3 ♊ Gemini		9 ♐ Sagittarius
Summer Signs {	4 ♋ Cancer	Winter Signs {	10 ♑ Capricornus
	5 ♌ Leo		11 ♒ Aquarius
	6 ♍ Virgo		12 ♏ Pisces

## FIXED AND MOVEABLE FESTIVALS, ANNIVERSARIES, &c.

Epiphany .. .. .	Jan. 6	Birth of Queen Victoria .. .. .	24
Septuagesima Sunday .. .. .	" 27	Trinity Sunday .. .. .	26
Martyrdom of King Charles I. .. .. .	" 30	Restoration of King Chas. II. .. .. .	29
Quinquagesima—Shrove Sun. .. .. .	Feb. 10	Corpus Christi .. .. .	30
Ash Wednesday .. .. .	" 13	Accession of Queen Victoria .. .. .	June 20
Quadragesima—1st Sunday } .. .. .	" 17	Proclamation .. .. .	" 21
in Lent .. .. .	" 17	St. John Baptist—Midsum-mer Day .. .. .	" 24
St. David .. .. .	March 1	Birth of Dowager Queen Adelaide .. .. .	Aug. 13
St. Patrick .. .. .	" 17	St. Michael—Michaelmas Day .. .. .	Sep. 29
Palm Sunday .. .. .	" 24	Gunpowder Plot .. .. .	Nov. 5
Annunciation—Lady Day .. .. .	" 25	Birth of Prince of Wales .. .. .	" 9
Good Friday .. .. .	" 29	Birth of Prince Albert .. .. .	" 26
EASTER SUNDAY .. .. .	" 31	St. Andrew .. .. .	" 30
Low Sunday .. .. .	April 7	1st Sunday in Advent .. .. .	Dec. 1
St. George .. .. .	" 23	St. Thomas .. .. .	" 21
Ascension Sunday .. .. .	May 5	Christmas Day .. .. .	" 25
Ascension Day—Holy Thursday .. .. .	" 9		
Pentecost—Whit Sunday .. .. .	" 19		

## BEGINNING OF THE SEASONS, 1850.

The Sun enters	Capricornus (Winter begins)	1849, Dec. 21 9 42 P.M.
"	Aries (Spring begins)	1850, March 20 11 3 P.M.
"	Cancer (Summer begins)	" June 21 8 0 P.M.
"	Libra (Autumn begins)	" Sept. 23 10 0 A.M.
"	Capricornus (Winter begins)	" Dec. 22 3 38 A.M.

## DURATION OF THE SEASONS, AND THE YEAR 1850.

The Sun will be in the	Winter	signs	89 Days	1 Hour	21 Minutes
"	Spring	"	93 "	20 "	57 "
"	Summer	"	93 "	14 "	0 "
"	Autumn	"	89 "	17 "	38 "

So that the period of Summer is 4 days, 12 hours, and 39 minutes longer than that of Winter; 17 hours and 3 minutes longer than that of Spring; and 3 days, 21 hours, and 22 minutes longer than that of Autumn.

The Sun will be on the Equator and going N. 1850, March 20 11 3 P.M., his declin. being 0 0 0

The Sun will reach his extreme N. declin. at 1850, June 21 8 0 P.M., his declin. being 23 27 25

The Sun will be on the Equator, and going S. 1850, Sept. 23 10 0 A.M., his declin. being 0 0 0

The Sun will be at his extreme S. declination 1850, Dec. 22 3 38 P.M., his declin. being 23 27 25

The Sun will be North of the Equator (Spring and Summer) 186 days 10 hours 57 minutes.

The Sun will be South of the Equator (Winter and Autumn) 178 days 18 hours 59 minutes.

The length of the Tropical Year, commencing at the Winter Solstice 1849, and ending at the Winter Solstice 1850, is 365 days 5 hours 56 minutes.

## ASTRONOMICAL SYMBOLS AND ABBREVIATIONS EXPLAINED.

☉ The Sun	♄ Iris	° Degrees
☾ New Moon	♃ Astrea	' Minutes of Arc
☾ First Quarter of Moon	♂ Flora	" Seconds of Arc
☾ Full Moon	♂ Metis	D. Days
☾ Last Quarter of Moon	♃ Jupiter	H. Hours
☿ Mercury	♄ Saturn	M. Minutes of Time
♀ Venus	♅ Uranus	S. Seconds of Time
♁ or ♂ The Earth	♆ Neptune	☉ Sunday
♂ Mars	♁ Ascending Node	☾ Monday
♂ Vesta	♂ Descending Node	☿ Tuesday
♂ Juno	N. North	♄ Wednesday
♂ Pallas	E. East	♃ Thursday
♂ Ceres	S. South	♀ Friday
♂ Hebe	W. West	♄ Saturday

The Symbol ☿ Conjunction, or having the same Longitude or Right Ascension.

" ☐ Quadrature, or differing 90° in Longitude or Right Ascension.

" ♂ Opposition, or differing 180° in Longitude or Right Ascension.

(For explanation of Astronomical terms, see Almanack for the year 1848.)

## LAW TERMS, 1850.

As Settled by Statutes 2 George IV., 1 William IV., cap. 70. s. 6 (passed July 23rd, 1830), and 1 William IV., cap. 3. s. 2 (passed December 23rd, 1830).

Hilary Term .. .. .	Begins January 11	Ends January 31
Easter Term .. .. .	" April 15	" May 8
Trinity Term .. .. .	" May 2	" June 12
Michaelmas Term .. .. .	" Nov. 2	" Nov. 25

## UNIVERSITY TERMS, 1850. OXFORD.

TERMS.	BEGINS.	ENDS.
Lent .. .. .	January 14	March 24
Easter .. .. .	April 10	May 18
Trinity .. .. .	May 22	July 6
Michaelmas .. .. .	October 10	December 17

The Act, July 2.

## CAMBRIDGE.

TERMS.	BEGINS.	DIVIDES.	ENDS.
Lent .. .. .	Jan. 13	Feb. 16, Noon	March 22
Easter .. .. .	April 10	May 23, Noon	July 5
Michaelmas .. .. .	Oct. 10	Nov. 12, Midnight	Dec. 16

The Commencement, July 2.





# JANUARY

M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN. SOUTHS.					MOON. SOUTHS.					DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE.				Day of the Year					
			Rises.	After 12 o'Clock.		Height above horizon.	Sets.	Rises. Afternoon	Morning.		Height above horizon.	Sets. Morning.	Before Sunrise.		After Sunset.		Morning.	Afternoon								
				h.	m.				h.	m.			h.	m.	O'Clock. 2h. 4h. 6h.	h.			m.	O'Clock. 6h. 8h. 10h.						
1	Tu	Circumcision	8	8	3	51	15	4	0	8	9	2	31	54	10	1					h.	m.	n.	m.	1	
2	W	Length of day 7h. 53m.	8	8	4	19	15	4	1	9	25	3	28	50	10	35					4	35	5	0	2	
3	Th	Day breaks 6h 3m A.M.	8	8	4	47	15	4	2	10	40	4	20	46	11	2					5	20	5	50	3	
4	F	Twilight ends 6h 6m P.M.	8	8	5	15	15	4	3	11	50	5	9	41	11	28					6	15	6	35	4	
5	S	Length of night 16h 4m	8	8	5	42	15	4	4	Morning.	5	57	37	11	53					7	0	7	25	5		
6	S	Epiphany	8	7	6	8	16	4	6	1	0	6	43	32	10	40					7	55	8	25	6	
7	M	Plough Monday	8	7	6	34	16	4	7	2	7	7	28	28	10	40					9	0	9	35	7	
8	Tu	Lucian. Fire In-	8	6	7	0	16	4	8	3	14	8	14	24	1	8					10	10	10	44	8	
9	W	Insurance due	8	6	7	25	16	4	9	4	15	8	59	22	1	37					11	20	11	50	9	
10	Th	Alpha Arietis souths 6h 39m P.M.	8	5	7	50	16	4	10	5	15	9	46	20	2	13					No Tide.	0	20	10	10	
11	F	Hilary Term beg.	8	5	8	14	16	4	12	6	10	10	33	19	1	4					0	45	1	10	11	
12	S		8	4	8	37	16	4	14	7	1	11	21	19	3	42					1	30	1	50	12	
13	S	1st S. aft EPIPH.	8	3	9	0	17	4	15	7	46	Afternoon	19	1	4	34					2	10	2	25	13	
14	M	Ox. Term begins	8	2	9	23	17	4	17	8	25	0	56	21	1	32					2	45	3	0	14	
15	Tu	Alpha Ceti souths 7h 52m P.M.	8	1	9	43	17	4	19	8	58	1	42	23	1	33					3	20	3	35	15	
16	W	Bat. of Cor. 1809	8	0	10	5	17	4	20	9	28	2	28	26	1	37					3	50	4	10	16	
17	Th	Pleiades south 7h 52m P.M.	7	59	10	25	17	4	21	9	53	3	13	30	1	42					4	25	4	40	17	
18	F	Prisca. Old T. D.	7	58	10	45	18	4	23	10	17	3	58	34	1	50					5	55	5	15	18	
19	S	Aldebaran souths 8h 32m P.M.	7	57	11	3	18	4	24	10	39	4	43	38	1	59					6	55	5	50	19	
20	S	2d S. aft EPIPH.	7	56	11	21	18	4	26	11	3	5	30	43	Morning.					7	10	6	30	20		
21	M	M Agnes	7	55	11	38	18	4	28	11	28	6	18	47	1	0	9					6	55	7	20	21
22	Tu	Vincent	7	54	11	55	18	4	30	11	59	7	10	51	1	21					9	7	45	8	15	22
23	W	Day inc. 54m.	7	53	12	10	19	4	32	Afternoon	8	5	54	1	2	37					10	8	50	9	30	23
24	Th	Capella souths 8h 51m P.M.	7	52	12	25	19	4	33	1	12	9	45	7	3	50					11	10	4	10	24	
25	F	Convers. St. Paul	7	51	12	39	19	4	34	2	4	10	5	57	5	2					12	11	25	At Midnight.	25	
26	S	Rigel souths 8h 44m P.M.	7	50	12	52	19	4	36	3	8	11	8	57	6	7					13	No Tide.	0	30	26	
27	S	SEPTUAGESIMA	7	49	13	4	20	4	38	4	19	Morning.	—	7	4					14	0	59	1	30	27	
28	M	Length of day 8h 52m	7	48	13	16	20	4	40	5	38	0	10	55	1	7	51					1	54	2	20	28
29	Tu	Beta Tauri souths 8h 42m P.M.	7	46	13	27	20	4	42	6	56	1	10	52	1	8	26					2	47	3	15	29
30	W	K. Chas. I. Mar.	7	45	13	37	20	4	44	8	16	2	6	48	1	9	2					3	35	4	0	30
31	Th	Hilary Term ends	7	43	13	45	21	4	46	9	30	2	59	43	9	29					18	4	20	4	40	31



## JANUARY.

THE SUN is situated south of the Equator, or he has south declination, and is in the sign Capricornus (the Goat) till the 20th, having been in that sign 29 days, 10 hours, 38 minutes. On this day, at 8h. 20m. A.M., he enters the sign Aquarius (the Water-bearer).

On the 1st day his distance from the earth is 93,408,000 miles, being the least in the year. He rises on the 1st at 3° S. of the S.E. by E.; on the 16th, at the S.E. by E.; and on the last day at 5½° S. of the E.S.E. He sets on the same days at 3° S. of the S.W. by W., at the S.W. by W., and at 5½° S. of the W.S.W. points of the horizon respectively.

The Moon is in the constellation Leo till the 31, on which day she passes into Virgo; on the 7th, into Libra; on the 9th, into Scorpio and Ophiuchus. She is in Sagittarius on the 11th, 12th, and 13th; in Capricornus, on the 14th and 15th; in Aquarius, on the 16th; in Pisces and Cetus, alternately, till the 21st; in Aries, on the 22d; in Taurus, on the 23d and 24th; in Gemini, on the 25th, 26th, and 27th; and in Leo, from the 28th to the end of the month.

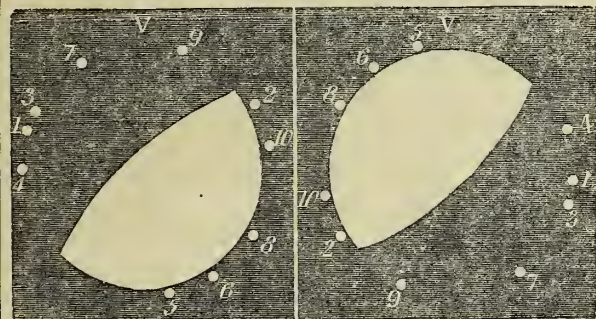
She is above the horizon when the Sun is below, during the morning hours, at the beginning and at the end of the month; and the evening hours, from the middle till nearly the end of the month.

She is situated N. of the Equator till the 4th; is on the Equator at 9h. P.M. on this day; is at her greatest south declination on the 12th; is on the Equator again on the 19th; reaches her extreme N. declination on the 26th; and is a little N. of the Equator at the end of the month.

She is near Jupiter on the 3d, Venus on the 12th, Mercury on the 14th, Saturn on the 19th, Uranus on the 20th, Mars on the 24th, and Jupiter again on the 30th, at midnight.

On January 23d several stars are occulted by the Moon; and early on the morning of the 24th the bright star Aldebaran will be occulted. The disappearances of the stars will take place at the dark limb of the Moon, and their reappearances at the bright limb. The Moon will be seen to approach Aldebaran for some time before it disappears. The annexed diagrams exhibit the places at which the several phenomena take place, both for telescopes which do, and for those which do not, invert. The diagram in both cases is drawn more espe-

OCULTATIONS OF STARS BY THE MOON, JANUARY 23 AND 24, 1850.



By direct vision.

As seen through an inverting telescope.

cially for the appearance of the Moon at the time of the occultation of Aldebaran; the places marked for the other occultations will, therefore, be understood as having the same relative position to the highest point of the Moon at the times of their occurrence, as seen through the telescope, as they have to the letter V in the diagram.

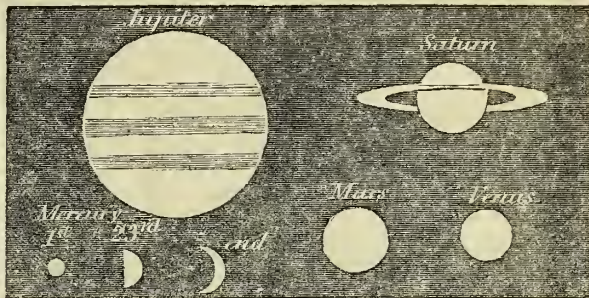
Gam-	ma	will disappear	D. H. M.	at the place	marked	at the place	marked	D. H. M.	at the place	marked	re-appear
Tauri			1	at 23 5 4 P.M.				2	at 23 6 6 P.M.		
Theta 1 Tauri			3	at 23 9 42 P.M.				6	at 23 10 49 P.M.		
Theta 2 Tauri			4	at 23 9 49 P.M.				5	at 23 10 43 P.M.		
A Star			7	at 23 10 47 P.M.				8	at 23 11 52 P.M.		
Aldebaran			9	at 24 1 32 A.M.				10	at 24 2 1 A.M.		

MERCURY is in the constellation Sagittarius till the 6th; in Capricornus, from

the 6th to the 26th; in Aquarius, on the 27th, 28th, and 29th; and, on the last day, enters Capricornus.

He sets on the 1st, at 4h. 26m. P.M.; on the 5th, at 4h. 46m.; on the 10th, at 5h. 13m.; on the 15th, at 5h. 41m.; on the 20th, at 6h. 6m.; on the 25th, at 6h. 19m.; and on the 31st, at 6h. 8m. P.M. These times are 0h. 26m., 0h. 42m., 1h. 3m., 1h. 22m., 1h. 40m., 1h. 45m., and 1h. 22m. after sunset respectively. He is, therefore, favourably situated after the Sun sets, from the 10th to the

RELATIVE TELESCOPIC APPEARANCE OF THE PLANETS IN JANUARY, 1850.



Scale, 40 seconds of arc to one inch.

end of the month. The best times are from the 20th to the 28th. He sets on the 1st at 5° S. of S.W. by W.; on the 10th at S.W. by W.; on the 23d at W.S.W.; and on the last day at 5° N. of W.S.W. He is moving eastward among the stars till the 28th; is stationary on the 29th; and begins to move westward on the 30th. His path among the stars, during this month, is shown in the diagram in February.

VENUS is in the constellation Sagittarius to the 25th, and in that of Capricornus from the 26th. She is a morning star throughout the month, but not favourably situated for observation. She rises on the 1st at 7h. 5m.; and on the last day at 7h. 30m. near the S.E. by E. point of the horizon.

MARS is in the constellation Taurus. He is visible throughout the night, and sets on the 1st at 7h. 21m. A.M.; on the 15th at 6h. 10m. A.M.; and on the last day at 5h. 5m. A.M., near the N.W. point of the horizon.

JUPITER is in the constellation Virgo throughout the month.

He rises on the 1st at 10h. 27m. P.M., and on the last day at 8h. 24m. P.M., midway between the E. and E. by N. points of the horizon; and he sets after the Sun rises.

JUPITER'S SATELLITES.—Several immersions of the 1st, 2d, and 3d Satellites, and an emersion of the 3d, and another of the 4th, take place. The relative position of the Satellite to Jupiter at the instant of the eclipse is shown in the annexed diagram, as viewed through an inverting telescope.

RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION OR EMERSION.

1st Sat.	2nd Sat.	3rd Sat.	4th Sat.

SATURN is in the constellation Cetus throughout the month.

He is an evening star, and sets at a point a little S. of W. at 11h. 23m. P.M. on the 1st, and at 9h. 37m. P.M. on the last day. He souths at an altitude of 37½ nearly.

URANUS is in the constellation Pisces throughout the month.

He sets near the W. by N. on the 1st, at 1h. 28m. A.M., and on the last day at 1h. 29m. P.M. He souths on the 15th, at 5h. 45m. P.M., at an altitude of 46½.

NEPTUNE sets on the 1st at 8h. 43m. P.M.; on the 15th at 7h. 51m. P.M.; and on the last day at 6h. 51m. P.M., midway between the W. by S. and the W.S.W. points of the horizon.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.						JUPITER'S SATELLITES.				OCULTATIONS OF STARS BY THE MOON.				
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.	Neptune.	Eclipses of				Names of the Stars.	Magnitudes.	Times of disappearance & re-appearance of the Star.	At which limb of the Moon.	Between what Latitudes visible.
	Afternoon	Morning	Afternoon	Morning	Afternoon	Afternoon	1st Sat.	3rd Sat.	4th Sat.						
1	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	n. h. m.	n. h. m.			45 Leonis	6	{ 2 6 30 A.M.	Dark	7° N. & 89° N.
6	0 54	11 8	10 10	4 35	5 8	3 18	12 3 59 A.M.	11 3 5 A.M. I.					{ 2 7 25 A.M.	Bright	
11	1 9	11 16	9 46	4 15	4 50	2 59	19 5 52 A.M.	11 6 24 A.M. E.					{ 21 5 4 P.M.	Bright	22° N. & 90° N.
16	1 20	11 23	9 24	3 55	4 31	2 40	21 0 21 A.M.	18 7 2 A.M. I.					{ 21 5 50 P.M.	Dark	
21	1 27	11 31	9 3	3 35	4 13	2 21	28 2 14 A.M.						{ 22 9 57 P.M.	Bright	10° N. & 90° N.
26	1 22	11 38	8 43	3 15	3 55	2 2							{ 22 10 52 P.M.	Dark	
31	1 3	11 44	8 25	2 54	3 37	1 42							{ 24 8 16 P.M.	Bright	9° N. & 74° N.
													{ 24 9 29 P.M.	Dark	

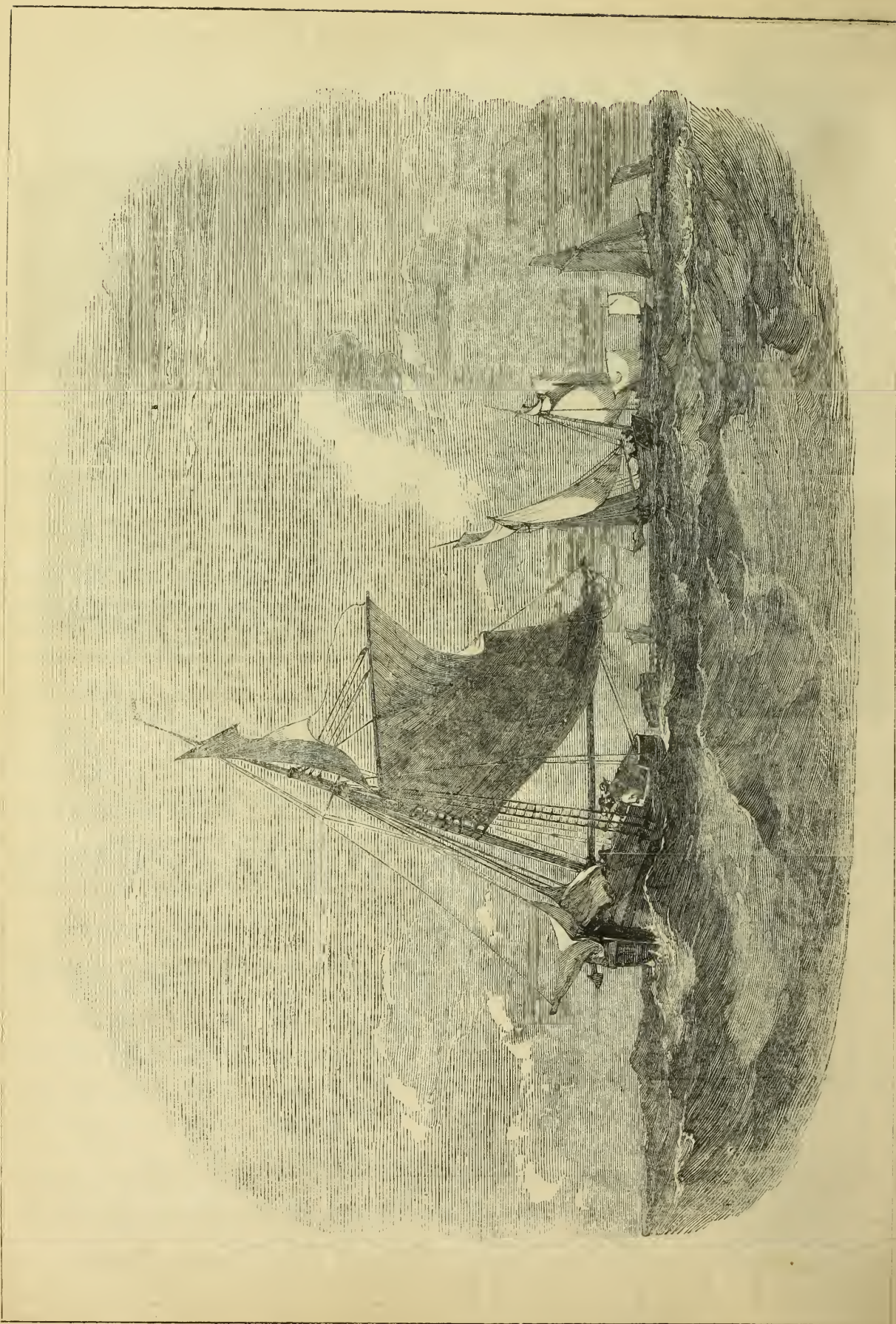
TIMES OF CHANGES OF THE MOON. And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	Mercury.	Venus.	Mars.	Jupiter.	Saturn.	Neptune.
LAST QUARTER	5D.	8H.	37M.	A.M.		
NEW MOON	13	11	19	A.M.		
FIRST QUARTER	21	9	40	A.M.		
FULL MOON	28	0	51	A.M.		
APOGEE	12	8		A.M.		
PERIGEE	27	4		A.M.		

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.	
	Right Ascension	Declination South	Right Ascension	Declination South	Right Ascension	Declination North	Right Ascension	Declination North	Right Ascension	Declination South	Right Ascension	Declination North	Right Ascension	Declination South
1	19h. 22m.	24° 17'	17h. 44m.	23° 10'	5h. 21m.	26° 29'	11h. 36m.	3° 57'	0h. 11m.	1° 26'	1h. 24m.	8° 10'	22h. 20m.	11° 11'
6	19 57	22 53	18 11	23 24	5 15	26 25	11 37	3 56	0 12	1 19	1 24	8 11	22 20	11 7
11	20 31	20 50	18 38	23 21	5 11	26 20	11 37	3 58	0 13	1 11	1 24	8 12	22 21	11 4
16	21 3	18 14	19 6	22 59	5 8	26 14	11 36	4 2	0 14	1 1	1 24	8 13	22 21	11 0
21	21 29	15 21	19 33	22 19	5 6	26 10	11 36	4 7	0 15	0 51	1 24	8 15	22 22	10 57
26	21 44	12 43	19 59	21 23	5 6	26 6	11 35	4 15	0 17	0 41	1 25	8 18	22 22	10 54





JANUARY.—SOLE FISHING.



## NOTES ON NATURAL HISTORY.—JANUARY.

The common wren, "Kitty wren" as the bird is familiarly called by children, is one of the few of the feathered race which remain near dwelling-houses nearly all the year. Like its companion, the robin, it seems quite indifferent to the cold; and it hops about as gaily when frost and snow are on the ground, as in the brightest days of summer. The female is very particular about her nest: sometimes, when she has half finished it, she appears to take a dislike to the spot; and, after surveying it carefully, and hopping from post to tree, and from tree to rail, and holding her little head first on one side and then on the other, as if she were weighing all the advantages and disadvantages of the place, she seems finally to make up her mind, and either sets to work to finish her nest out of hand, or she flies off to some more convenient situation, where she begins a new one. Wherever the nest may be placed, the wren is never satisfied with its situation



COMMON WREN.

unless it is well sheltered from the rain; and on this account she always chooses a nook under the thatch, the cavity in a hollow tree, the projecting bank of a hedge, a hole in a hayrick, or some similarly protected place. The material used in building the nest is generally that which is nearest at hand, and, of course, differs in different situations; one that was built near a schoolroom being actually constructed in great part of the scrapings and feathers of writing quills! The wren is generally very desirous to conceal her nest; and when she has brought a bundle of moss almost as large as herself, she will hop about from branch to branch, carrying her load with her, "anxiously waiting for some slow-walking passenger to move away before she ventures to approach the spot where the nest is in progress." Mr. Knapp, in his "Journal of a Naturalist," relates, among the stratagems of a wren to conceal her nest from observation, that she had formed a hollow space in the thatch inside a cow-shed, in which she had placed her nest by the side of a rafter, and finished it with her usual neatness; but, lest the orifice of the cell should engage attention, she had negligently hung a ragged piece of moss on the straw-work, concealing the entrance and apparently proceeding from the rafter; and so perfect was the deception, that it would not have been noticed, had not the bird betrayed her own secret by darting out. When the wren is sitting, if she sees any one approaching her, she gives utterance to a peculiar cry of rage, which sounds like "Check! check!" and she repeats this many times with vehemence, as though she were scolding outrageously, particularly when the intruder appears frightened and runs away; in which case the wren sometimes follows to a considerable distance, with loud manifestations of anger. The nest is very large in proportion to the small size of the bird, and so deep that the young ones are kept almost in darkness. The young are very numerous, as many as sixteen having been found in one nest; and both their number and the darkness of their abode have been alluded to by Grahame, in his poem on the birds of Scotland:—

The numerous progeny, claimants for food  
Supplied by two small bills, and feeble wings  
Of narrow range, supplied—ay, duly fed—  
Fed in the dark, and yet not one forgot.

The wren, in England, is generally kindly treated, even by boys; but, in Ireland, hunting the wren is a favourite pastime on Christmas Day. The hunting is performed with two sticks, one of which is used to beat the bushes, and the other to throw at the bird. Mr. Yarrell mentions that "it was the boast of an old man who died at the age of a hundred, that he had hunted the wren for the last eighty years, on Christmas Day." On St. Stephen's Day (December 26th) the children used to exhibit the slaughtered birds on an ivy-bush, decked with ribbons of various colours, and to carry them about, singing—

The wren! the wren! the king of birds!  
The best of all that live in the furze;

and to collect money to bury the wren. In some places the wren itself is hunted on St. Stephen's Day. Happily, this barbarous custom is now abolished, except in some few places in the south of Ireland. The feeling of the children in England with respect to the wren is very different; as, so far from hunting the bird, or wishing to injure it in any way, they have a superstitious feeling that it is unlucky to hurt it, and, consequently, boys that delight in attacking every other kind of bird that falls in their way, respect the wren, and would tremble at the thought of killing one.

In January, vegetation is, of course, suspended; and the only green leaves that appear through the snow are those of evergreens, particularly those of the pine and fir tribe, which, when the snow is partially melted and again frozen, have a very singular and beautiful effect; as the delicate tracery of their branches, gracefully drooping from the weight of the brilliant icicles which hang from them, is so striking as to give the idea of the garden of a fairy palace rather than any object of ordinary occurrence. After a hoar frost, the trees are still more beautiful. Trees that shed their leaves are generally considered to present no beauty in winter; and yet it is impossible to look at the leafless limbs of a large tree in the depth of winter, particularly when the earth is covered with snow, without being powerfully struck with the wonderful difference presented by the tracery of different trees when no longer obscured by the leaves, and the outline of their numerous branches is clearly shown by the white ground beyond. Any one accustomed to trees could never, even in the month of January, mistake an oak for an ash or a poplar. The sturdiness of the oak, and the shortness of its trunk in proportion to its thickness, and the peculiarly rugged character of its branches, mark it as distinctly in the middle of winter as when it is covered with leaves, or even with acorns. The black Italian poplar, on the contrary, has its stem exceedingly long in proportion to its thickness; and its branches, though very numerous, do not extend far from the tree, and are extremely slender, generally producing tufts of small twigs at the extremity. The Lombardy poplar is still more peculiar in its appearance. It grows very high in proportion to the thickness of its stem, and its long slender branches all taper upwards, so as to give the whole tree the shape of a flame. The willow has long, slender, drooping branches. The plane trees generally retain their seed-vessels, which hang like balls on long slender stems from the leafless branches; and these trees are also known by their bark falling off in large plates, so as to look exactly as though the tree had been injured by some mischievous boy. There are some large plane trees in Hyde-park, which often

excite indignation from this appearance in the minds of those who are not acquainted with the general habit of the tree. The American plane tree only ripens its seeds in this country in warm summers; and as, when the seed-vessel bursts, and the seeds are scattered, each being furnished with a little white feathery plume, they have a cottony appearance, this tree, in North America, is called the cotton-tree. The black Italian poplar has its seeds enveloped in a white cottony down, which falls in such abundance when the seed-vessels burst, as to entitle it also to be called the cotton-tree, as the ground at the foot of the tree is often quite covered over with white cotton, which looks as though it could be used for carding and spinning. The catkin of the black English poplar, on the contrary, is red, and, when it falls, it looks so like the larva of the goat-moth, that children are sometimes afraid to pick it up. The elm, when devoid of leaves, has much less grandeur about it than the oak. The Scotch elm has widely-spreading branches; but those of the English elm are small, and somewhat slender in comparison with the size of the tree. The bark is also rough, particularly that of the variety called the Cornish elm, which is very rough, and has often deep fissures in it. The weeping elm is particularly beautiful; and though a few years ago it was comparatively unknown, it is now becoming common in plantations. The beech is remarkable for the smoothness of its bark; and the birch for its silvery hue, and also for the lightness and elegance of its branches, which, in early spring, are adorned by long feathery catkins, which are almost as ornamental as flowers.

The lower shrubs are seldom ornamental in winter, unless the season is mild, when the *Laurustinus* is covered with flowers. It is singular enough that the *Azalea japonica*, though it is a native of Japan, will bear the severest frost uninjured, though the sweet bay and many other similar plants are killed. The *Azalea japonica* is interesting in other points of view; and it is remarkable that, though it has been a common garden shrub in this country for the last sixty years, it is only a variety with variegated leaves that has been introduced, and it has never been known to produce fruit in Great Britain. The fruit is said to be a kind of nut, but, from the general appearance of the tree, it appears much more likely that it is a berry. It is nearly allied to the dogwood, and some botanists have supposed it possible that a hybrid might be raised between it and that tree. The holly, the ivy, and many other trees, are ornamental during winter, from their berries; and the *Chimonanthus fragrans* and the *Hamelis*, from their flowers. The flowers of the *Chimonanthus* are of a pale straw-colour, with a dark purple spot, and they are delightfully fragrant. The flowers of *Garrya elliptica* also appear at this season, hanging down in long rows, like Love-lies-bleeding in form, but of a greenish colour.

When the ground is covered with snow, few ferns are visible; but, as soon as the snow begins to melt away, the rocks about Tunbridge Wells, and in many other places, are covered with the evergreen kinds; and among them is occasionally seen an elegant little fern (*Hymenophyllum tunbridgense*), which hangs



HYMENOPHYLLUM TUNBRIDGENSE.

down, "clothing," as Sowerby expresses it, "the shaded, perpendicular faces of dripping rocks and caverns," with its filmy fronds, which lie over one another, "like the half-ruffled plumage of a bird," and form a kind of tapestry of half transparent, shaded green. These ferns are remarkable for the extreme delicacy of their leaves, or fronds, which become brown or shrivelled if exposed to the sun and a drying air even for a few hours, but which are extremely beautiful when quite fresh and moist. The species, though called the Tunbridge fern, is yet found in many other parts of England, and in the south of Scotland.

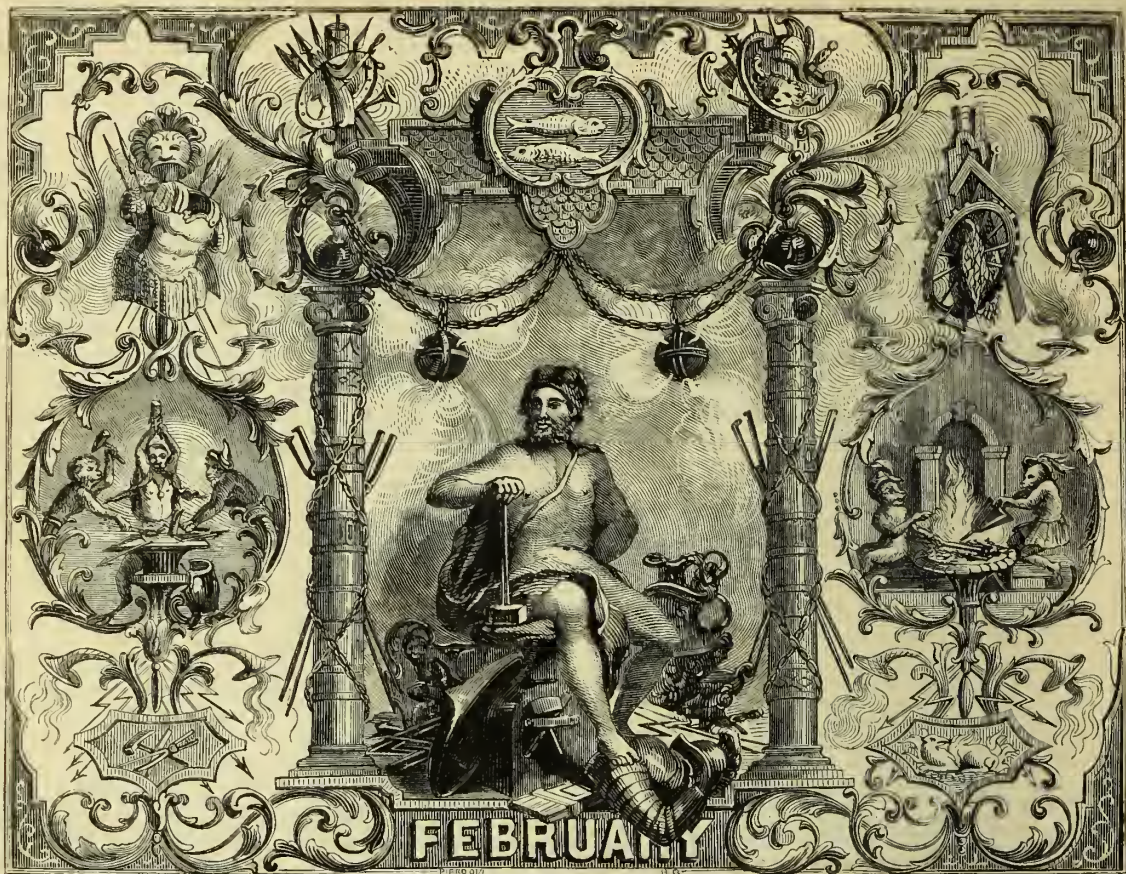
At this season of the year, the few insects that are still alive are mostly in a torpid state, except the cricket (*Acheta domestica*), whose merry chirp is still louder in winter than in summer, on account of the additional fires that are required at this season; as the cricket, perhaps more than any other insect, enjoys warmth. When we hear the chirp of a cricket, we naturally suppose that it is a sound uttered from the mouth, but this is by no means the case. The cricket has two wings, which are covered with wing-cases of a leathery consistency, and these wing-cases the cricket rubs against its body with a very brisk motion, whereby it produces its sound. We are told that crickets are used in Africa to promote sleep; but in this country they appear more likely to destroy it, as the noise they make is sometimes so loud as to be extremely disagreeable. It has been remarked that the chirp becomes louder in proportion as the heat increases, and it is extremely difficult to silence the crickets in any way but by putting out the fire.

Most insects die at the commencement of winter, leaving their eggs to continue their species; and these, by a wonderful provision of nature, they lay, late in autumn, on the stems and branches of plants, and not upon the leaves, as they do in summer—the wonderful instinct that has been implanted in them warning them that thus only can they secure the welfare of their progeny. It has also been observed that the eggs which are to be hatched in summer are fixed only very slightly to the leaves on which the young are to feed; but in autumn the eggs which are attached to the trunk and branches are fixed firmly and covered with the greatest care, so as to enable them to resist all the alternations of weather to which it is likely they will be exposed.



THE CRICKET.





M	W	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT.					HIGH WATER				Day of the Year
			SOUTH.					SOUTH.										AT LONDON BRIDGE.				
			Rises.	Before 12 o'clock.	Height above horizon.	Sets.	Rises. Afternoon	Morning.	Height above horizon.	Sets. Morning.	Before Sunrise. O'Clock. 2h. 4h. 6h.	Moon's Age.	After Sunset. O'Clock 6h. 8h. 10h.	Morning.	Afternoon							
1	F	Length of day 9h 7m	7 41	13 54	21 1/2	4 48	10 44	3 49	39	9 51				19			5 5	5 25	32			
2	S	<i>Purif.</i> Cand. D.	7 40	14 1	21 1/2	4 49	11 53	4 37	34 1/2	10 20				20			5 45	6 5	33			
3	S	SEXAGESIMA S.	7 38	14 8	22	4 50	Morning.	5 24	30 1/2	10 42				21			6 30	6 50	34			
4	M	Pleiades south 6h 40m P.M.	7 36	14 14	22 1/2	4 52	1 1	6 10	26 1/2	11 11				22			7 15	7 35	35			
5	Tu	<i>Agatha</i>	7 34	14 19	22 1/2	4 54	2 5	6 56	23 1/2	11 41				23			8 5	8 35	36			
6	W	Length of night 14h 35m	7 32	14 23	22 3/4	4 56	3 8	7 43	21 1/2	Afternoon				24			9 10	9 50	37			
7	Th	Aldebaran south 7h 17m P.M.	7 30	14 27	23 1/2	4 57	4 5	8 30	19 1/2	0 53				25			10 25	11 5	38			
8	F	Half-Qu. Day	7 29	14 29	23 1/2	4 59	4 56	9 17	19	1 37				26			11 40	No Tide.	39			
9	S	Capella south 7h 48m P.M.	7 27	14 31	23 1/2	5 0	5 43	10 5	19 1/2	2 28				27			0 17	0 44	40			
10	S	QUINQUAGESIMA	7 25	14 32	24 1/2	5 2	6 24	10 52	20 1/2	3 25				28			1 6	1 30	41			
11	M	[or SHROVE S.	7 24	14 33	24 1/2	5 4	7 0	11 39	22 1/2	4 23				29			1 50	2 10	42			
12	Tu	<i>Shrove Tuesday</i>	7 22	14 32	24 1/2	5 6	7 31	Afternoon	25 1/2	5 29				30			2 25	2 45	43			
13	W	<i>Ash W.</i> Lent b.	7 20	14 31	25 1/2	5 8	7 56	1 11	29	6 34				1			3 0	3 15	44			
14	Th	<i>St. Val.</i> O. C. D.	7 18	14 29	25 1/2	5 10	8 22	1 57	33	7 40				2			3 35	3 50	45			
15	F	Rigel south 7h 25m P.M.	7 16	14 26	25 1/2	5 12	8 46	2 42	37 1/2	8 50				3			4 5	4 20	46			
16	S	Camb. Term div.	7 10	14 23	26 1/2	5 14	9 8	3 28	41 1/2	9 59				4			4 35	4 55	47			
17	S	1st SUN. in LENT	7 12	14 19	26 1/2	5 16	9 33	4 15	45 1/2	11 8				5			5 10	5 30	48			
18	M	Day inc. 2h. 20m.	7 11	14 14	26 3/4	5 18	10 1	5 5	50	Morning.				6			5 50	6 5	49			
19	Tu	Length of day 10h 10m	7 9	14 8	27 1/2	5 19	10 31	5 57	53 1/2	0 22				7			6 30	6 50	50			
20	W	<i>Ember Week</i>	7 7	14 2	27 1/2	5 21	11 9	6 52	56	1 34				8			7 15	7 40	51			
21	Th	Beta Tauri south 7h 12m P.M.	7 5	13 55	28 1/2	5 23	11 52	7 50	57 1/2	2 45				9			8 15	8 55	52			
22	F	Day brk. 5h. 9m.	7 3	13 47	28 1/2	5 25	Afternoon	8 50	57 1/2	3 51				10			9 35	10 15	53			
23	S	Alpha Orionis south 7h 34m P.M.	7 1	13 39	28 3/4	5 27	1 55	9 51	56 3/4	4 50				11			11 0	11 45	54			
24	S	2ND S. in LENT.	6 59	13 30	29 1/2	5 29	3 7	10 50	54	5 40				12			No Tide.	0 20	55			
25	M	[ <i>Matthias</i>	6 56	13 21	29 1/2	5 30	4 26	11 48	48 1/2	6 22				13			0 50	1 20	56			
26	Tu	Sirius south 8h 14m P.M.	6 54	13 11	29 3/4	5 32	5 44	Morning.	—	6 56				14			1 45	2 10	57			
27	W	Twilight ends 7h 27m P.M.	6 52	13 0	30 1/2	5 34	7 2	0 43	49 3/4	7 28				15			2 35	2 55	58			
28	Th	Castor south 7h 52m P.M.	6 50	12 49	30 1/2	5 36	8 18	1 35	41 1/2	7 55				16			3 20	3 40	59			



before the Sun. He rises on the 3rd at 7h. 37m.; on the 15th, at 6h. 21m., being 55m. before the Sun; on the 20th, at 6h. 5m., being 1h. 2m. before the Sun. The times of rising from the 18th to the 26th precede the times of sunrising; quantities somewhat more than an hour; and on the 28th he rises at 5h. 52m., being 58 minutes before the Sun. He is favourably situated after sunset during the first three days, and before sunrise between the 18th and the 26th. He sets at the beginning of the month about 6<sup>h</sup> 3' S. of the W. by S. point of the horizon; and he rises about the middle of the month near the E.S.E. point of the horizon. He is near Venus on the 9th, and the Moon on the 11th; but these phenomena are not well situated for observation. He moves westward amongst the stars till the 17th; is almost stationary till the 20th; and moves eastward from the 21st, as shewn in the annexed diagram.

*Ecliptica*

*1850*

*Aries* *Taurus* *Gemini* *Cancer* *Leo* *Virgo* *Libra* *Scorpio* *Sagittarius* *Capricorn* *Aquarius* *Pisces*

*Sol* *Luna* *Mercurius* *Venus* *Terra* *Mars* *Jupiter* *Saturnus* *Uranus* *Neptunus*

the shadow of the planet is called an immersion; and its re-appearance at coming out of the shadow is called an emersion. These phenomena, called eclipses of Jupiter's Satellites, generally take place when the Satellite is apparently at some distance from the body of the planet; except at times when he souths at about midnight, when they take place near to his body. When Jupiter souths before midnight, both the immersions and the emersions happen on the eastern side; but when he souths after midnight, they take place on the western side of the planet; and if viewed by means of a telescope which does not invert, such would be their positions; but if an inverting telescope be directed to Jupiter, their appearances will be directly the contrary—the positions of the satellites, which are really on one side, will appear to be on the opposite side. When Jupiter souths after midnight, the immersions only of the first satellite are visible; and when he souths before midnight, the emersions only. It rarely happens that both the immersion and emersion of the second satellite can be observed at the same eclipse, but both phenomena are generally visible of the third and fourth satellites. Jupiter souths this year at midnight on the 12th of March. Several immersions and two emersions of the 4th are visible: the relative position of the satellite to Jupiter, at the instant of the eclipse, is shown in the annexed diagram, as viewed through an inverting telescope.

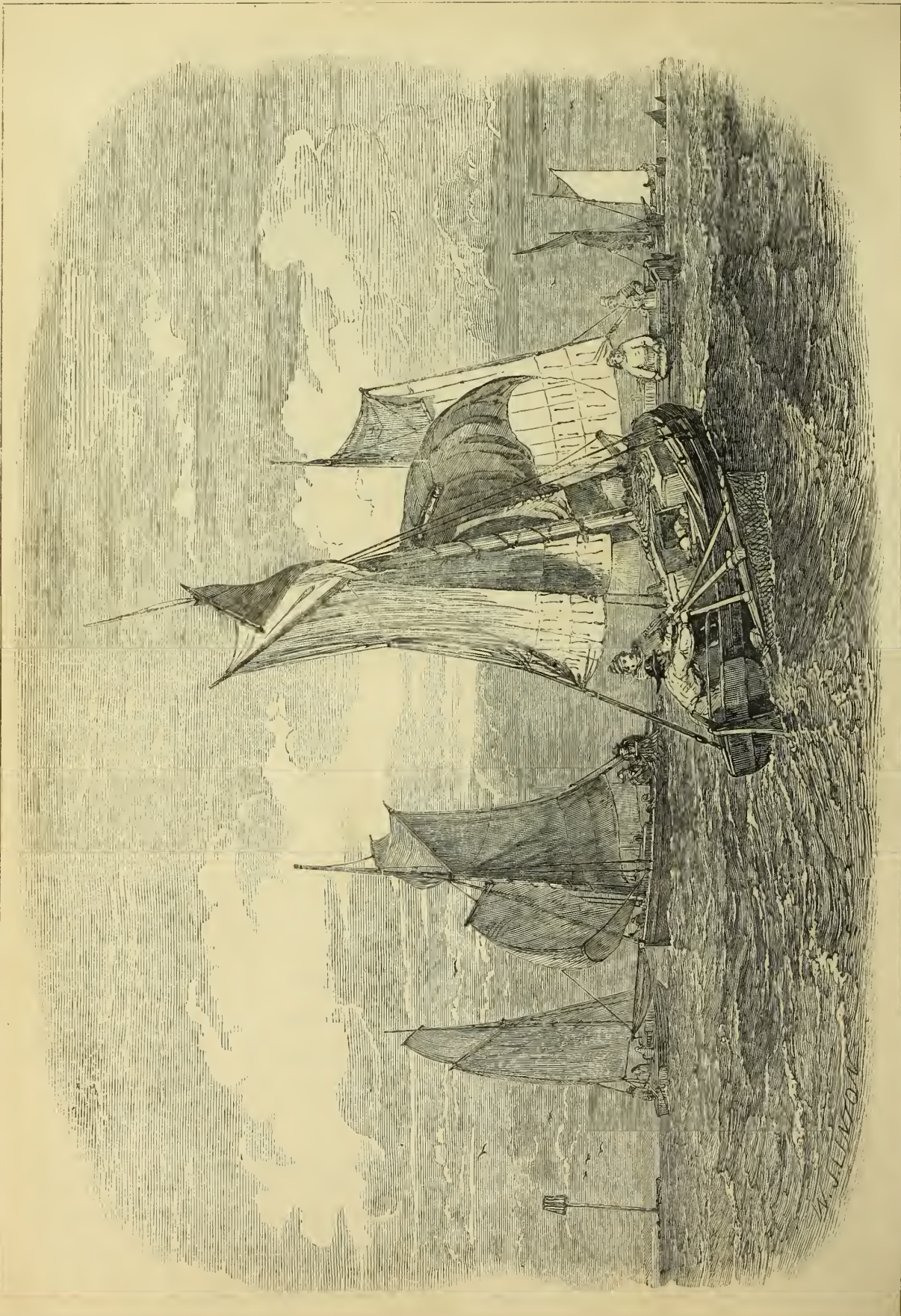
1st Sat.	2nd Sat.	3rd Sat.	4th Sat.

NEPTUNE sets on the 1st, at 6h. 48m. P.M.; on the 15th, at 5h. 53m. P.M. and on the last day, at 5h. 6m. P.M., midway between the W. by S. and the W.S.W. points of the horizon.

[illegible]

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.			Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.													
				MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.	
				Right Ascension	Declina- tion South.	Right Ascension	Declina- tion South.	Right Ascension	Declina- tion South.	Right Ascension	Declina- tion South.	Right Ascension	Declina- tion South.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion South
LAST QUARTER..	4D.	1H. 18M. A.M.	1	21h. 42m	11° 4'	20h. 31m	19° 54'	5h. 8m	26° 3'	11h. 33m	4° 26'	0h. 19m	0° 27'	1h. 25m	8° 21'	23h. 23m	10° 48'
NEW MOON ..	12	6 29 A.M.	6	21 24	11 33	20 57	18 24	5 11	26 2	11 32	4 36	0 21	0 15	1 26	8 24	22 24	10 44
FIRST QUARTER	19	8 12 P.M.	11	21 1	13 11	21 22	16 41	5 15	26 1	11 30	4 49	0 22	0 2	1 26	8 28	22 24	10 41
FULL MOON ..	26	At Noon.	16	20 46	14 53	21 47	14 46	5 20	26 1	11 28	5 2	0 24	North.	1 27	8 32	22 25	10 37
APOGEE ..	8	3 P.M.	21	20 46	16 4	22 11	12 41	5 26	26 2	11 26	5 16	0 26	0 24	1 28	8 37	22 26	10 32
PERIGEE ..	24	11 A.M.	26	20 56	16 33	22 35	10 28	5 32	26 1	11 24	5 31	0 28	0 38	1 29	8 41	22 26	10 28





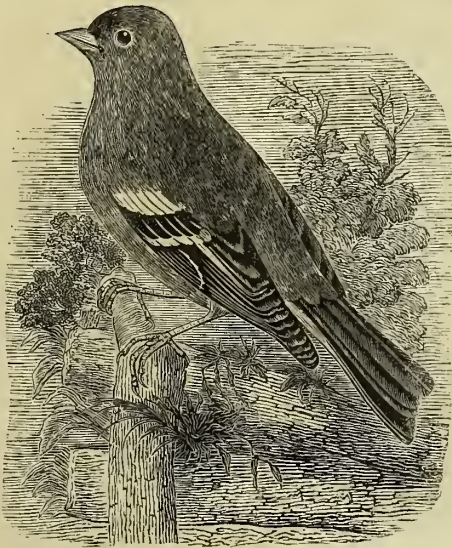
W. J. LONDON

FEBRUARY.—SHRIMPING OFF THE BLIGH, AT THE MOUTH OF THE THAMES.



## NOTES ON NATURAL HISTORY.—FEBRUARY.

In February, if the season is mild, some few birds begin to build their nests, and others to hop about and chirp cheerfully, as if feeling a strong sense of enjoyment at the first glimpse of the return of warmth and summer. To those who feel interested in the study of nature, every season has its charm; but, perhaps, at no period of the year has nature so many attractions as when every object around seems first emerging from the sleep of winter. In the depth of winter, when vegetation is quite torpid, the birds are silent; and even when they seem awakened to returning animation by the first breath of spring, their notes are weak, and their song is imperfect, the sounds being apparently uttered with difficulty; and, as the Rev. L. Jenyns observes, "to hear them labouring at a song, and only managing to get out part of it, conveys the idea of some physical impediment, which for awhile they appear unable to surmount." This is particularly observable in the chaffinch (*Fringilla cælebs*), which generally utters its



CHAFFINCH.

first feeble notes about the first or second week of February, but which does not attain its full song till some weeks afterwards. When its song has attained its full perfection it is generally very regular, and consists of a definite number of notes. The chaffinch sings very early in the morning; and, indeed, in summer, Jenyns tells us, it begins at three o'clock. This bird is sometimes called the bachelor, probably from Linnaeus having given it the specific name of *cælebs*, which signifies a bachelor, because in Sweden and other northern countries the females migrate in the winter to a milder climate, leaving only the male birds behind; and these males must naturally have appeared to Linnaeus so solitary that we cannot wonder he calls them bachelors. With us, however, as is observed in the "Journal of a Naturalist," the sexes do not separate at any season of the year, the flocks frequenting our barn-doors and homesteads in winter being composed of both males and females, which are easily distinguished from each other, the male bird being remarkable for the cleanliness and trimness of his plumage, which, without having any great variety or splendour of colouring, is so composed and arranged, and the white on his wings so brilliant, as to render him a very beautiful little creature. The female is as remarkable for the quiet, unobtrusive tints of dress; and, when she lies crouching on her nest, elegantly formed of lichens from the bark of the apple tree and faded mosses, she would hardly be perceptible but for her little bright eyes that peep with suspicious vigilance from her covert." The same work informs us that in Gloucestershire these birds are generally called "twinks," from their constant repetition of one note resembling that word, when they are alarmed or in danger. The female chaffinch is very careful in building her nest, which is a very elegant one, curiously studded with lichens interwoven with wool, and lined with feathers and hair. She generally chooses the fork of a tree, or the centre of a mass of ivy, but in some cases she fixes her nest snugly against the trunk of a tree, and in such a situation that it seems wonderful that the nest is not washed away by the first heavy storm that occurs. When the nest is closely examined it generally excites astonishment, from the neatness of its workmanship; for it is so firm and strong that it is difficult to pull it asunder. In summer the chaffinch lives principally upon insects, but in winter and very early spring it is apt to attack the seeds that are sown for the early vegetables, and also the first flowers of spring: sometimes the snowdrops, winter aconites, and the little red archangel will be found with the petals of their flowers lacerated as soon as they unfold; and sometimes the chaffinch may actually be seen tearing the flowers asunder to get at the pistil or incipient seed-vessel, which it finds at their base.

As the month advances, many birds are heard to sing, and among the earliest, after the robin-redbreast and the wren, which may be said to sing all winter, may be mentioned the hedge accentor, or hedge sparrow, the tom-tit, the skylark, the thrush, and the blackbird; and, in short, the melody of the woods may be said to have begun. "To me," says Mr. Waterton, in one of his charming essays, "to me, whom kind Providence has destined to spend the best part of my time in the open air, the song of birds is soothing beyond expression; and whilst I am admiring the beauty of the rising flowers around me, I know no greater addition to my gratification than that of listening to it. How enchanting is it to inspect the early snow-drops, those 'fair maids of February,' whilst the stormcock is pouring forth its newly-acquired notes from the top of a neighbouring elm! and how delightful it is to hear cock-robin's carol on the thorn that affords a shelter to the humble primrose!"

Sweet are the omens of approaching spring,  
When gay the alder sprouts her winged leaves;  
When tooting robins carol-welcomes sing,  
And sparrows cheep glad tidings from the eaves.

What lovely prospects wait each wakening hour,  
When each new day some novelty displays;  
How sweet the sunbeam melts the crocus-flower,  
Whose borrow'd pride shines dimm'd in his rays.  
Sweet, new-laid hedges flush their tender green;  
Sweet peep the arum-leaves their shelter screen;  
Ah! sweet is all that I'm denied to share;  
Want's painful hindrance holds me to her stall,  
But still Hope's smiles unpaint the thorns of Care.  
Since Heaven's eternal spring is free from all.—CLARE.

The flowers of early spring are, indeed, most highly prized, not only for their natural beauty, but because they come to us with all the charm of novelty, and as a promise of the further pleasures which are in store for us; and hence we seldom feel so much delight in viewing any of the most gorgeous flowers of summer as we do when we first perceive the graceful form of the snow-drop peeping through the ground, or the bright yellow of the winter aconite, succeeded by the richer yellow striped with brown, and the delicate white striped with pale lilac, of the cloth of gold and Scotch crocuses. These are followed by the primrose, with its pale yellow flowers peeping out from every bank, and the beautiful little white wood anemone, with the golden flowers of the buttercups, and the lesser celandine. But among these flowers, which have been so often mentioned, and whose beauties have been enlarged upon by every author who has written on the spring, there are others which have been passed by comparatively unnoticed, though almost equally common. In the depths of Epping Forest, particularly at High Beach, where the noble trees form avenues which look like the stately aisles of some magnificent Gothic cathedral, may be found a little British plant, which, when it first appears above the ground, which it does in the beginning of February, looks very much like asparagus. Its flowers open about the latter end of February or the beginning of March; and, strange to say, they grow from the centre of the leaves, and are succeeded by bright red berries, which also grow from the middle of the leaves, and which have a most singular appearance, as they seem as if they had dropped there by accident, so unnatural does it appear that they should grow in such a position. This plant is called butcher's broom (*Ruscus aculeatus*), because butchers used formerly to hang bunches of it over their meat to keep away the flies; as, from the hardness of the leaves and their sharp points, which are as prickly as those of the holly, they wound the large flies, which are most injurious to meat, whenever they approach them. In Germany, the plant is called mouse-thorn, because it is used in cupboards and pantries to put over cold meat, butter, and other articles of food, which are occasionally attacked by mice, to keep these little animals away; as, when they have once pricked their noses with the sharp points of the butcher's broom, they never venture near the place again. The botanic name of the plant (*Ruscus*) is derived from two Celtic words, signifying box holly.



BUTCHER'S BROOM.

The warmth of February is seldom sufficient to hatch the eggs of the moths and butterflies, except in some instances where the eggs have been deposited in situations fully exposed to the sun. The water beetles, at the beginning of winter, generally retire to the mud at the bottom of the ponds, where they remain till the frost is all gone. The ground beetles (*Cábrus*), on the



GROUND BEETLE.

contrary, generally adhere by their claws to the underside of a stone, which serves for their winter retreat, their backs being next the ground: a strange posture, which, however, is no doubt dictated to them by instinct for some admirable purpose which we do not yet clearly understand, but which, perhaps, may be, as Messrs. Kirby and Spence seem to suppose, intended to defend them from the wet. Sometimes a number of these beetles are found crowded together as if to keep each other warm. In all cases, the ground beetles appear to winter in a perfect state, and in places whence they can easily emerge whenever a few fine days incline them to do so. Thus, they are frequently seen in February, or, in fact, whenever a few warm days have given the first indications of spring. The ground beetles are so called because they are very seldom seen except on the ground. Most of the species, indeed, are incapable of flying, as they have only the rudiments of wings; and those that have wings very rarely make use of them, as they are generally too short and too weak for the purposes of flight. The insects are, however, very active, running away with the greatest quickness when alarmed, and hiding themselves in the ground and under stones. They generally shun the light, coming abroad only in the evening, and then preying voraciously upon other insects, or, when these are not to be procured, on their own species. Whenever one of the ground beetles is injured in any way, or appears feeble or ill, the others are sure to attack him and devour him. When taken in the hand, they eject a drop of very acrid liquor, which has a very strong disagreeable smell, and which burns the hand like caustic, leaving a black or brownish stain which it is very difficult to efface. The grubs of these insects are found generally in rotten wood, and they differ from many other kinds of grubs in having six scaly feet, and remarkably strong jaws, with which they seize any caterpillars that are so unfortunate as to fall in their way. Réaumur, a French naturalist, has given us an account of the voracity of one of these grubs that is perfectly terrific. He says, that with its scaly pincers it will attack a caterpillar, and burying its head in the body, "notwithstanding the writhing of the sufferer, will persevere till the whole is devoured. The largest caterpillar is hardly sufficient for one day's nourishment; and it will eat several in the same day, when they are to be found." These grubs are so glutinous that when they have an opportunity, they eat so much that the skin appears ready to crack. This inordinate appetite, however, does not always go unpunished; for sometimes when the largest of the grubs are unable to move from repletion, they are attacked by the young and active of their own species, and devoured. After giving such an instance of their barbarity, it is but fair to add, that they are highly respected in France for the good they do in destroying the grub of the cockchafer, a most destructive insect; which, in France particularly, is considered to destroy more plants than nearly all the other insects put together.





M	W	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT.					HIGH WATER		Day of the Year.
			SOUTH.			Sets.	Rises.	SOUTH.			Sets.	Before Sunrise.		After Sunset.		AT LONDON BRIDGE.				
			Rises.	After 12 o'clock.	Height above horizon.			Rises.	Morning.	Height above horizon.		Morning.	O'clock. 2h. 4h. 6h.	Moon's Age.	O'clock. 7h. 8h. 10h.	Morning.	Afternoon.			
D	D		H. M.	M. S.	Deg.	H. M.	H. M.	H. M.	Deg.	H. M.						H. M.	H. M.			
1	F	<i>St. David</i>	6 48	12 37	31 5	37	9 33	2 25	36 1	8 16			17			4 0	4 20	60		
2	S	<i>St. Chad</i>	6 46	12 25	31 1	39	10 43	3 14	32	8 45			18			4 40	5 0	61		
3	S	3RD S. in LENT	6 44	12 12	31 5	41	11 51	4 2	28	9 11			19			5 15	5 35	62		
4	M	Length of day 11h 1m.	6 42	11 59	32 5	43	Morning.	4 49	24 1	9 40			20			5 55	6 15	63		
5	Tu	Day breaks 4h 45m	6 40	11 45	32 5	45	0 54	5 36	22	10 12			21			6 35	6 55	64		
6	W	Twilight ends 7h 40m	6 38	11 31	32 5	46	1 55	6 24	20	10 50			22			7 15	7 45	65		
7	Th	<i>Perpetua</i>	6 36	11 17	33 5	48	2 50	7 12	19 1	11 33			23			8 10	8 50	66		
8	F	<i>O. S. Matthias</i>	6 34	11 2	33 5	50	3 39	7 59	19 1	Afternoon			24			9 30	10 15	67		
9	S	Rigel souths 6h 0m P.M.	6 31	10 47	34 5	51	4 22	8 47	20	1 15			25			10 55	11 35	68		
10	S	4TH S. in LENT.	6 28	10 31	34 1	53	5 0	9 34	21 2	2 14			26			No Tide.	0 10	69		
11	M	Beta Tauri souths 6h 2m P.M.	6 26	10 15	34 5	55	5 31	10 21	24 1	3 18			27			0 38	1 0	70		
12	Tu	<i>St. Gregory</i>	6 23	9 59	35 5	57	6 0	11 7	27 1	4 22			28			1 20	1 40	71		
13	W	Alpha Orionis souths 6h 23m P.M.	6 21	9 43	35 5	58	6 27	11 53	31 2	5 29			29			2 0	2 20	72		
14	Th	Day increased 3h 57m	6 18	9 26	36 6	0	6 50	Afternoon	35	6 39			1			2 35	2 50	73		
15	F	Length of night 12h 14m	6 16	9 9	36 1	2	7 13	1 25	39 1	7 49			2			3 10	3 25	74		
16	S	Sirius souths 7h 3m P.M.	6 13	8 52	36 6	4	7 38	2 13	44 1	9 0			3			3 40	3 55	75		
17	S	5TH S. in LENT	6 11	8 35	37 6	6	8 5	3 2	48 1	11 4			4			4 15	4 30	76		
18	M	[ <i>St. Patrick</i>	6 9	8 17	37 1	8	8 34	3 54	52 1	11 27			5			4 50	5 5	77		
19	Tu	Castor souths at 7h 37m P.M.	6 7	7 59	38 6	10	9 8	4 48	55 1	Morning			6			5 25	5 45	78		
20	W	Spring commen.	6 5	7 41	38 1	11	9 50	5 44	57 1	0 37			7			6 5	6 30	79		
21	Th	<i>Benedict</i>	6 3	7 23	38 3	12	10 41	6 42	58 1	1 43			8			6 50	7 20	80		
22	F	Camb. Term ends	6 1	7 5	39 1	14	11 41	7 41	57 1	2 44			9			7 55	8 35	81		
23	S	Ox. Term ends	5 59	6 46	39 6	15	Afternoon	8 39	55 1	3 35			10			9 20	10 5	82		
24	S	PALM SUNDAY	5 57	6 28	39 6	17	2 3	9 35	52 1	4 19			11			10 50	11 35	83		
25	M	<i>Annun. Lady D.</i>	5 54	6 9	40 6	18	3 20	10 30	48 1	4 54			12			No Tide.	0 10	84		
26	Tu	P. Geo. Will. b.	5 52	5 51	40 6	20	4 37	11 22	43 1	5 26			13			0 40	1 6	85		
27	W	Procyon souths 7h 12m P.M.	5 50	5 32	41 6	22	5 54	Morning.	—	5 54			14			1 30	1 55	86		
28	Th	Maunday Thurs.	5 48	5 13	41 1	24	7 9	0 13	38 3	6 19			15			2 15	2 40	87		
29	F	GOOD FRIDAY	5 45	5 55	41 1	26	8 23	1 23	4 1	6 43			16			2 55	3 15	88		
30	S	Pollux souths 7h 5m P.M.	5 43	4 36	42 1	28	9 33	1 51	29 1	7 11			17			3 35	3 55	89		
31	S	EASTER SUNDAY	5 41	4 18	42 1	30	10 39	2 39	26 1	7 38			18			4 13	4 30	90		



## MARCH.

THE SUN is situated south of the Equator till the 20th, and north of the Equator from the 21st. He is in the sign Pisces till the 20th, having been in that sign 29 days, 23 hours, and 58 minutes. On the 20th, at 11h. 3m. p.m., he enters the sign Aries (the Ram), and Spring commences. He rises on the 3d at the E. by S., and on the 23d at the E.; he sets on the same day at the W. by S., and at the W. points of the horizon. On the first day he is 94,190,000 miles distant from the Earth. His times of southing, in common clock time, and his height above the horizon expressed in degrees at the same time, are shown on the Calendar pages in every month.

The Moon is in Virgo on the 1st and 2d; in Libra on the 3d and 4th; in Ophiuchus on the 5th and 6th; in Sagittarius on the 7th and 8th; in Capricornus on the 9th and 10th; in Aquarius on the 11th and 12th; in Pisces on the 13th; moving on the boundaries of Pisces and Cetus on the 15th and 16th, and on those of Cetus and Aries on the 17th; in Taurus on the 18th and 19th; crossing the Milky Way during the evening hours of the 20th, being in part of Orion; in Gemini on the 21st and 22d; in Cancer on the 23d and 24th; in Leo on the 25th and 26th; in Virgo from the 27th to the 30th; and then in Libra till the end of the month.

She is above the horizon when the Sun is below, during the morning hours at the beginning and at the end of the month; and during the evening hours from the 15th to the 26th.

She is south of the Equator from the 1st to the 15th. Her greatest south declination is on the 7th; she is on the Equator on the 15th; is at her extreme north declination on the 21st, and again on the Equator on the 28th, and going south.

She is near Mercury on the 11th; Venus on the 14th; Saturn on the 15th; Uranus on the 16th; Mars on the 21st; Jupiter on the 26th; and Saturn on the 31st.

MERCURY is in the constellation Aquarius till the 6th; in Capricornus from the 7th to the 10th; in Aquarius again from the 11th to the 25th; and in Pisces from the 26th.

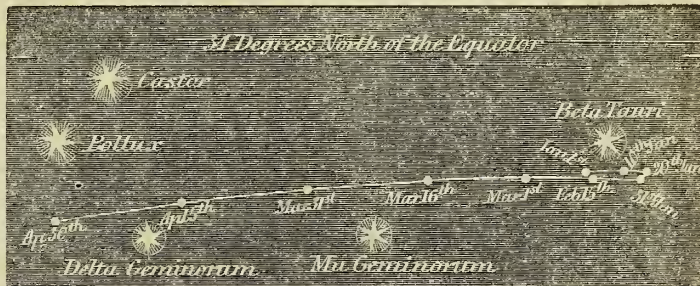
He is a morning star all the month, and rises on the 1st at 5h. 52m., on the 10th at 5h. 47m., on the 20th at 5h. 39m., and on the last day at 5h. 27m.; these times being 56m., 41m., 26m., and 14m. before the times of sunrise respectively. He is not very favourably situated for observation. On the 14th, he rises near the E.S.E.; and towards the end of the month, near the E. by S. points of the horizon. He is at his greatest W. elongation on the 5th; and is near the Moon on the 11th. He moves eastward among the stars during the month. (See the diagram in last month, exhibiting his path in the heavens.)

VENUS is in the constellation Aquarius till the 4th, and in that of Pisces from the 5th. She is an evening star towards the end of the month, and sets on the 15th at 6h. 14m. p.m., and on the 31st at 7h. 6m. p.m., at the W. point of the horizon. She moves eastward among the stars; is in superior conjunction with the Sun on the 3rd; is near the Moon on the 14th, and Saturn on the 25th. She is not yet favourably situated for observation. The annexed diagram shows her path among the stars, and her relative position to them at different times. Her

teleopic appearance is that of a complete circle, of the same dimensions as in January.

MARS is in the constellation Taurus till the 9th, on which day he enters Gemini. He is crossing the Milky Way till the 20th, on which day he is at its W. boundary. He is an evening star, and sets on the 1st at 3h. 41m. a.m.; on the 15th at 3h. 2m. a.m.; and on the last day at 2h. 31m. a.m., midway between the N.W. by W. and the N.W. points of the horizon. He moves eastward among the stars, and is near the Moon on the 21st. His altitude above the horizon when he souths on the 1st is 64°, and on the last day 61°. The annexed diagram shows his path among the stars.

PATH OF MARS FROM JANUARY 1 TO APRIL 30, 1850.

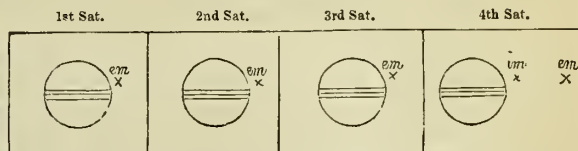


Scale, 12 degrees to one inch

JUPITER is in the constellation Leo throughout the month; he rises before the Sun sets. He sets after the Sun rises till the 18th, at the time of sunrise on the 19th, and before the Sun rises after this day, at the W. by N. point of the horizon. He rises on the 1st at 6h. 11m. p.m., and on the last day at 3h. 53m. p.m. He souths at an altitude of 44° on the 1st, and of 45° on the last day. He moves slowly westward among the stars, and is near the Moon on the 26th. His motion among the stars during this month is shown in the diagram in May.

JUPITER'S SATELLITES.—The Immersions of the 1st, 2d, and 3d, and an Emission of the 2d and another of the 4th are visible. The relative position of the Satellites to Jupiter at the instant of the eclipse is shown in the annexed diagram, as viewed through an inverting telescope.

RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION OR EMISSION.

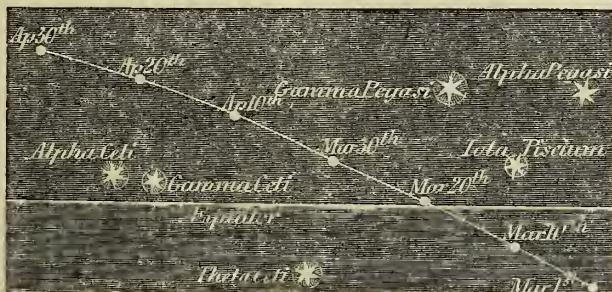


SATURN is in the constellation Cetus throughout the month; he is visible for a short time after sunset till towards the end of the month, and sets at a point a little N. of W., at 8h. 3m. on the 1st; at 7h. 16m. p.m. on the 15th; and with the Sun on the 30th. He souths at an altitude of 40° nearly. He is near the Moon on the 15th; Venus on the 25th; and is in conjunction with the Sun on the 31st. For his path in the heavens, see the diagram in September.

URANUS is in the constellation Pisces throughout the month; he sets midway between the W. by N. and W.N.W. points of the horizon, on the 1st at 9h. 42m. p.m., and on the last day at 7h. 52m. p.m. He is moving slowly eastward among the stars, and is near the Moon on the 16th.

NEPTUNE rises on the 1st at 6h. 33m. a.m.; on the 15th at 5h. 44m. a.m.; and on the last day at 4h. 42m. a.m.

PATH OF VENUS FROM MARCH 1 TO APRIL 30, 1850.

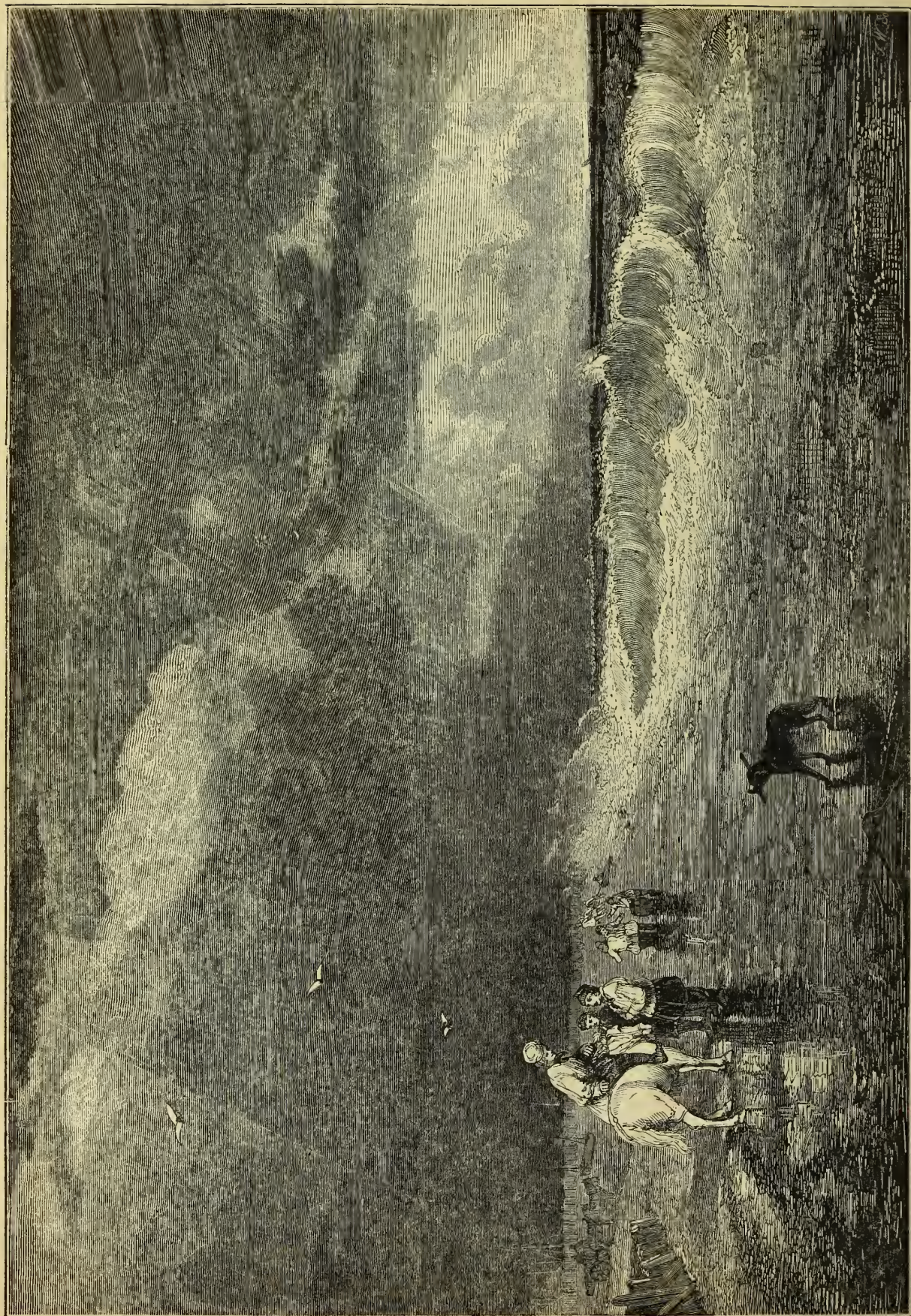


Scale, 21 degrees to one inch.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.						JUPITER'S SATELLITES.						OCULTATIONS OF STARS BY THE MOON.							
	Mercury.		Venus.		Mars.		Jupiter.		Saturn.		Neptune.									
													Eclipses of							
	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	1st Sat.	2nd. Sat.		Names of the Stars.	Magni- tude.	Times of disappear- ance & re-appear- ance of the Star.	At which limb of the Moon.	Between what Latitudes visible.
												Emersion.	Im. I. Emer. E.							
1	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	D.	H. M.	H. M.	Xi I Libræ	6	{ 3 5 10 A.M. 3 5 37 A.M.	Dark	2° N. & 77° N.
6	10 29	0 13	7 0	0 49	1 54	11 52	15 4	46 A.M.	7 9	28 P.M. I.	16 11	13 P.M.	15 2	51 A.M. E.						
11	10 28	0 17	6 49	0 27	1 36	11 33	16 11	13 P.M.	15 2	51 A.M. E.	24 1	7 A.M.				3 Cancri	6	{ 23 1 2 A.M. 23 1 54 A.M.	Bright	29° N. & 90° N.
16	10 32	0 20	6 37	0 5	1 19	11 14	24 1	7 A.M.	25 7	36 P.M.	31 3	1 A.M.								
21	10 38	0 23	6 26	Aftern.	1 1	10 55									3rd Sat.	Omicron I Cancri	6	{ 23 11 30 P.M. 24 0 34 A.M.	Bright	14° N. & 90° N.
26	10 46	0 26	6 16	11 16	0 44	10 36									23 9 57 P.M. E.					
31	10 56	0 29	6 6	10 54	0 27	10 17									31 1 55 A.M. E.					
	11 7	0 32	5 57	10 33	0 9	9 58									4th Sat.					
															26 4 11 A.M. I.					

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.					Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.														
						MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.		
						Right Ascension	Declini- ation South	Right Ascension	Declini- ation South.	Right Ascension	Declini- ation North.	Right Ascension	Declini- ation North.	Right Ascension	Declini- ation North.	Right Ascension	Declini- ation North.	Right Ascension	Declini- ation South.	
LAST QUARTER	5D.	8H.	5M.	P.M.	1	21h. 4m	16° 32'	22h. 49m	9° 4'	5h. 37m	26° 1'	11h. 22m	5° 41'	0h. 30m	0° 47'	1h. 29m	8° 44'	22h. 27m	10° 27'	
NEW MOON	..	13	11	17	P.M.	6	21 24	15 58	23 12	6 41	5 45	26 0	11 20	5 56	0 32	1 1	1 30	8 50	22 28	10 23
FIRST QUARTER	21	3	58	A.M.	11	21 47	14 47	23 35	4 12	5 53	25 58	11 18	6 12	0 34	1 16	1 31	8 55	22 29	10 19	
FULL MOON	..	27	11	26	P.M.	16	22 13	13 2	23 58	1 41	6 2	25 54	11 15	6 27	0 36	1 30	1 32	9 1	22 29	10 15
APOGEE	..	8	8	A.M.	21	22 41	10 44	0 20	North.	6 11	25 47	11 13	6 42	0 39	1 45	1 33	9 7	22 30	10 11	
PERIGEE	..	24	3	A.M.	26	23 10	7 55	0 44	3 24	6 21	25 39	11 11	6 56	0 40	2 0	1 34	9 13	22 30	10 1	





A MARCH DAY.



## NOTES ON NATURAL HISTORY.—MARCH.

The weather in March is generally more capricious than at any other season of the year; as in this month spring and winter appear contending for the victory, and cold winds, accompanied perhaps by frost and snow, are followed by gleams of sunshine, and sometimes by days as hot as those in the middle of summer. Violent storms are also frequent at this season, particularly about the vernal equinox, and for a week or two before and after that season. The storms in England, however, are but trivial compared with those of America; and one which occurred in that country just at the breaking up of winter is so remarkable, that an account of it was published some years ago by Mr. Richard Taylor, of which the following is an abridgement. This ice-storm occurred in the year 1832, at Phillipsburg, in Pennsylvania. The winter had been remarkably severe, but at the earliest commencement of spring a thaw took place, and in the open clearings all traces of snow suddenly disappeared; the birds began to sing, and the mosquitoes came out of their hiding-places and danced in clusters in the sunshine. At night a heavy rain set in, which descended in torrents, and was accompanied by such a piercing wind that it froze as soon as it touched the trees and the ground, so as to envelope every object in a thick coating of transparent ice. In the morning the scene surpassed all description: the ground looked like an enormous lake frozen quite hard; and the trees all seemed as though they had been formed of glass. The heavy foliage of the hemlock and spruce firs was literally incased in solid masses of ice, and the smallest twig or blade of grass, being surrounded by ice more than an inch thick, resembled the vegetable substances which sometimes occur in masses of crystal. While all was still, the scene was one of glittering magnificence; but when a wind arose it became terrific. The tall trees drooped and swung heavily, weighed down by the masses of solid crystal which the branches had to support, and as these struck against each other, they shivered and sent down avalanches of ice. On the succeeding morning, the limbs of the trees began to give way under such an unusual load. Every where around was seen and heard the crashing of the topmost branches, which fell to the earth with a noise like the breaking of glass, yet so loud as to make the woods resound. As the day advanced, instead of branches, whole trees began to fall; and, during twenty-four hours, the scene which took place was as sublime as can well be conceived. There was no wind perceptible, yet, notwithstanding the calmness of the day, the whole forest seemed in motion—falling, wasting, or crumbling, as it were, piecemeal. Crash succeeded to crash, until at length these became so rapidly continuous as to resemble the incessant discharges of artillery; gradually increasing, as if at first from the irregular firing at intervals of the outposts, to the uninterrupted roar of a heavy cannonade. Pines of one hundred and fifty and one hundred and eighty feet in height came thundering to the ground, carrying others before them. Groves of hemlocks were bent to the ground like reeds; and the spreading oaks and towering sugar maples were uprooted like stubble, and often without giving a moment's warning. Under every tree was a rapidly accumulating *debris* of displaced limbs and branches; their weight increased more than tenfold by the ice, and crushing every thing in their fall with sudden and terrific violence. Altogether, this spectacle was one of indescribable grandeur. The roar, the cracking and rending, the thundering fall of the uprooted trees, the startling unusual sounds and sights produced by the descent of such masses of solid ice, and the suddenness of the crash when a neighbouring tree gave way, all together presented a scene not easily forgotten. Yet all this was going on in a dead calm, except at intervals a gentle breeze from the south-east slightly waved the topmost pines. Had the wind freshened, the destruction would have been still more appalling. It was awful to witness the sudden prostration of oaks of the largest class. These trees were the greatest sufferers; and it seemed remarkable that the deciduous trees should be less able to bear the additional burthen than the heavily laden evergreens. The branches of the oaks rapidly gave way, while the thickly encased foliage of the hemlock spruce fir hung drooping around the stems, upon their long pliant branches, until they appeared like a solid mass, or monumental pillar of ice. The weight of the trees was so prodigiously increased by the load of ice they had to sustain, that a branch of hemlock spruce which weighed twenty pounds when covered with ice, weighed only one pound when the ice was melted. The scene of desolation which presented itself after this "ice-storm," Mr. Taylor describes as being most extraordinary. Within the limits of fifteen acres of forest fifty of the largest trees were overthrown, besides an immense number that had their branches broken. Roads were completely stopped up by the falling timber. Waggon, sleds, and sleighs were necessarily abandoned, and the horses, in some instances, with difficulty saved. In the course of a few days, however, a thaw, accompanied by heavy rain, completely cleared the drooping forest of the remains of its unwonted covering.

As many birds build their nests in February, of course young birds are abundant in the month of March; and as, when the weather happens not to be particularly warm, there are not so many caterpillars as in summer, the parent birds are frequently obliged to go to a considerable



WINTER GREEN.

distance to obtain food for their young; and, as the young birds are thus left comparatively unprotected, they frequently fall victims to some of the many enemies by which they are surrounded. The parent birds, also, from the intemperance with which they pursue their occupation, frequently run into dangers which, under other circumstances, they would have avoided, and are pounced upon by the sparrow-hawks and other birds of prey, which seem instinctively to know that it is a favourable moment for their attacks. In some cases the unfortunate birds appear to see their danger, but to be unable to avoid it; and in the "Journal of a Naturalist" a fact is related which seems to prove that the powers of some of the smaller birds are completely subdued by the presence of an enemy:—"A beautiful male bullfinch," says Mr. Knapp, "that sat pecking the buds of a blackthorn by my side, when I was overlooking the work of a labourer, suddenly uttered the instinctive moan of danger, but made no attempt to escape into the bush, seemingly deprived of the power of exertion. On looking round, a sparrow-hawk was observed on motionless wing, gliding rapidly along the hedge, and, passing me, rushed on its prey with undeviating certainty."

The Winter Green (*Pyrola*) is an elegant little plant, which grows wild in the north of England and in Scotland, but which it is very difficult to cultivate. One species is occasionally found in gardens, but that which has cut leaves is quite a wild denizen of the woods, which resists every attempt at cultivation. The flower is very pretty, as it is white with a yellow centre, and the petals have a solid wax-like appearance, somewhat like those of the camellia.

In March, the meadows in some situations are gay with daffodils, the wild flowers of which are, perhaps, even more splendid than the cultivated varieties, though they are much less durable. Shakespeare speaks of the daffodil in the beautiful lines on the flowers of spring, in "The Winter's Tale":—

Daffodils,  
That come before the swallow dares, and take  
The winds of March with beauty; Violets dim,  
But sweeter than the lids of Juno's eyes,  
Or Cytherea's breath; pale Primroses,  
That die unmarried, ere they can behold  
Bright Phoebus in his strength; bold Oxlips, and  
The Crown Imperial.

Herrick has also addressed the following lines to the daffodil:—

Fair daffodils, we weep to see  
You haste away so soon;  
As yet the early rising sun  
Has not attained his noon.  
Stay, stay,  
Until the hastening day  
Has run  
But to the evening song;  
And, having pray'd together, we  
Will go with you along!

We have short time to stay, as you;  
We have as short a spring,  
As quick a growth to meet decay,  
As you, or anything—  
We die  
As your hours do; and dry  
Away,  
Like to the summer's rain,  
Or as the pearls of morning dew,  
Ne'er to be found again.

In the gardens are now abundance of crocuses of various kinds; mezeoreons, pink and white; the spurge laurel, one kind of which (*Daphne pontica*) has fragrant flowers; and abundance of violets. The trees are beginning to come into leaf, particularly the willow, the laburnum, and the lilac; and the horse-chestnut begins to open its buds, the large scales enclosing which crack and fall off in such quantities that they may be gathered up with the hand from under the trees. The buds of the elm also throw off their scales when the leaves first open in spring. Among the other trees which come early into leaf may be mentioned the aspen and the white poplar.

The alternations of bright sunshine and rain which are common in March are extremely favourable to the appearance of gnats and other similar insects. The first of these that appear are what are called the winter midges (*Trichocera hyemalis*). "These delicate little creatures may often be seen throughout the winter and early spring months assembled in troops, alternately rising and falling with rapid revolutions, in some sunny nook, even though the ground may at the time be covered with snow." As the spring advances, these midges are succeeded by others of a different species; and as the weather becomes warmer the true gnats appear. The sting of the gnat (*Culex pipiens*) is well known; though gnats themselves are generally so rapid in their movements, and so much dreaded whenever they appear, that very few people are aware of the delicacy and elegance of their forms. Even the sting is very curiously formed. The sucker which pierces the skin is enclosed in a sheath, which folds up as the sucker enters into the flesh: the sucker of the gnat has six lancets, and it thus inflicts a severe though minute wound, the pain of which is increased by an acrid liquor injected into it. When a gnat is examined under a microscope, it will be found beautifully and delicately formed; and those who will take the trouble to watch the operations of the female, when she is about to make her nest, will be very much struck with the ingenuity and admirable instinct which this little creature displays. The eggs of the gnat are pointed at the upper end and much broader below, and they are so heavy that if laid singly in the water they would sink to the bottom. The difficulty, therefore, is to contrive some mode of keeping them floating; and this the gnat performs by making her eggs into a kind of boat-shaped raft. To perform this the mother gnat fixes herself by her fore-legs to a floating leaf, branch, or anything else that may be in the water, with her body resting on the surface, except the last ring of her tail, which is a little raised; "she then crosses her two hind legs in the form of the letter X, the inner opening of which is intended to form the scaffolding of her structure. She accordingly brings the inner angle of her crossed legs close to the raised part of her body and places in it an egg, covered, as is usual among insects, with a glutinous fluid. On each side of this egg she places another, all which adhere firmly together, by means of their glue, and form a triangular figure, which is the stern of the raft. She proceeds in the same manner to add egg after egg in a vertical (not a horizontal) position, carefully regulating the shape by her crossed legs; and, as her raft increases in magnitude, she pushes the whole gradually to a greater distance; and when she has about half finished she uncrosses her legs and places them parallel, the angle being no longer necessary for shaping the boat. Each raft consists of from two hundred and fifty to three hundred and fifty eggs, which, when all laid, float on the water secure from sinking, and are finally abandoned by the mother. They are hatched in a few days, the grubs issuing from the lower end; but the boat, now composed of the empty shells, continues to float till it is destroyed by the weather.



GNAT INSERTING ITS STING.



FEMALE GNAT DEPOSITING HER EGGS.





M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN. SOUTH.				MOON. SOUTH.				DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE.		Day of the Year.
			Rises.	After 12 o'clock.	Height above horizon.	Sets.	Rises. Afternoon.	Morning.	Height above horizon.	Sets. Morning.	Before Sunrise.		After Sunset.		Morning.	Afternoon.	
											O'Clock. 2h. 3h. 4h.	Moons Age.	O'Clock. 8h. 9h. 10h.				
1	M	Easter Monday	5 38	3 59	43	6 31	11 43	3 27	22	4 8	8	19			4 50	5 5	91
2	Tu	Easter Tuesday	5 36	3 41	43	6 33	Morning.	4 16	20	8 45		20			5 25	5 40	92
3	W	Rich. Bp. Chich.	5 34	3 23	43	6 35	0 41	5 4	19	9 25		21			6 0	6 20	93
4	Th	St. Ambrose	5 32	3 5	44	6 37	1 33	5 52	18	10 11		22			6 40	7 5	94
5	F	Sirius souths 5h 44m P.M.	5 29	2 47	44	6 38	2 19	6 40	19	11 4		23			7 30	8 0	95
6	S	Old Lady Day	5 27	2 30	45	6 40	2 58	7 27	20	Afternoon		24			8 45	9 25	96
7	S	LOW SUNDAY	5 24	2 12	45	6 41	3 31	8 14	23	1 2		25			10 10	10 45	97
8	M	Fire Insur. due	5 22	1 55	45	6 43	4 2	9 0	26	2 7		26			11 25	At Midnight.	98
9	Tu	Castor souths 6h 15m P.M.	5 20	1 39	46	6 44	4 27	9 46	29	3 14		27			No Tide.	0 25	99
10	W	Ox. & C. T. beg.	5 18	1 22	46	6 45	4 52	10 32	33	4 23		28			0 50	1 10	100
11	Th	Length of day 13h 31m	5 15	1 6	46	6 46	5 15	11 18	38	5 33		29			1 30	1 45	101
12	F	Day breaks 3h 8m	5 13	0 50	47	6 48	5 40	Afternoon	43	6 45		30			2 0	2 20	102
13	S	Twilight ends 8h 57m	5 11	0 34	47	6 50	6 6	0 56	47	8 0		1			2 40	2 55	103
14	S	2ND S. aft. EAST.	5 9	0 18	47	6 52	6 34	1 48	51	9 15		2			3 10	3 30	104
15	M	Easter Term beg.	5 7	0 3	48	6 53	7 7	2 42	54	10 29		3			3 50	4 5	105
16	Tu	Procyon souths 5h 53m P.M.	5 5	Before 12 o'clock	48	6 55	7 47	3 39	57	11 38		4			4 25	4 45	106
17	W	Length of night 10h 5m	5 2	0 26	49	6 57	8 35	4 37	58	Morning.		5			5 5	5 30	107
18	Th	Pollux souths 5h 50m P.M.	5 0	0 40	49	6 59	9 33	5 36	58	0 40		6			5 50	6 15	108
19	F	Alphage	4 58	0 54	49	7 0	10 39	6 34	56	1 34		7			6 45	7 15	109
20	S	Alpha Hydra souths 7h 26m P.M.	4 56	1 7	50	7 2	11 51	7 30	53	2 19		8			7 50	8 30	110
21	S	3RD S. aft. EAST.	4 55	1 20	50	7 4	Afternoon	8 23	49	2 57		9			9 15	9 55	111
22	M	Regulus souths 7h 53m P.M.	4 53	1 32	50	7 6	2 21	9 15	45	3 27		10			10 40	11 20	112
23	Tu	St. George	4 51	1 44	51	7 8	3 37	10 5	40	3 54		11			11 50	No Tide.	113
24	W	Beta Leonis souths 9h 31m P.M.	4 49	1 56	51	7 10	4 51	10 54	36	4 21		12			0 20	0 45	114
25	Th	St. Mark Evan.	4 47	2 7	51	7 11	6 3	11 42	31	4 46		13			1 10	1 35	115
26	F	(Princess Alice M. born, 1843.)	4 45	2 18	52	7 13	7 14	Morning.	—	5 10		14			1 55	2 10	116
27	S	Spica Virgins souths 10h 56m P.M.	4 43	2 28	52	7 14	8 23	0 30	27	5 36		15			2 35	2 50	117
28	S	4TH S. aft. EAST.	4 41	2 37	52	7 16	9 29	1 18	24	6 6		16			3 10	3 30	118
29	M	Arcturus souths 11h 33m P.M.	4 39	2 47	53	7 17	10 31	2 7	21	6 40		17			3 45	4 0	119
30	Tu	Regulus souths 7h 27m P.M.	4 37	2 55	53	7 19	11 25	2 56	19	7 18		18			4 20	4 40	120



## APRIL.

THE SUN is situated north of the Equator, and on the 20th, at 11h. 16m. A.M., passes from the sign Aries to that of Taurus (the Bull), having been in the former sign 30 days, 12 hours, and 13 minutes. He rises on the 8th, at E. by N.; and on the 28th, at E.N.E. He sets on the same days near W. by N. and W.N.W. On the 1st he is 95,003,000 miles distant from the Earth.

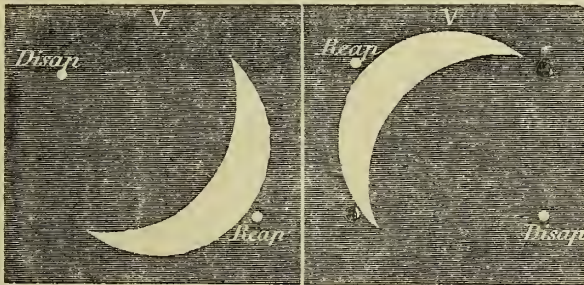
The Moon is in Ophiuchus on the 1st and 2nd; in Sagittarius from the 3d to the 5th; in Capricornus on the 6th and 7th; in Aquarius on the 8th and 9th; in Cetus, and moving near the boundaries of Cetus, Pisces, and Aries, from the 9th to part of the 14th; in Taurus on the latter part of the 14th to the 16th; in part of Orion, and crossing the Milky Way, during the early hours of the 17th; in Gemini on the 18th and 19th; in Cancer on the 19th and 20th; in Leo on the 21st and 22nd; in Virgo from the 23rd to the 26th; in Libra on the 27th and 28th; in Ophiuchus on the 29th; and in Sagittarius, on the evening of the last day.

She is above the horizon when the Sun is below, during the morning hours, for some days at the beginning and at the end of the month; and during the evening hours, from the 15th to the 27th.

She is at her extreme south declination on the 4th; on the Equator on the 11th; at her greatest north declination on the 19th; a second time on the Equator, on the 24th; and is south of the Equator till the end of the month.

She is near Mercury and Saturn on the 11th; Uranus on the 12th; Venus on the 13th; Mars on the 18th; and Jupiter on the 22nd. Her times of rising, southing, and setting, together with her height expressed in degrees at the times of southing, are given on the calendar pages for every day in the year. Her times of being full and new are given in every month at the foot of the second page of every month.

## OCULTATION OF ALDEBARAN BY THE MOON, ON APRIL 15, 1850.



By direct vision, or as seen through a telescope which does not invert.

As seen through an inverting telescope.

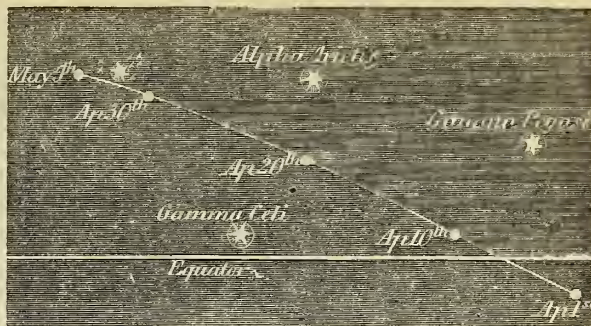
The star will disappear at the dark limb of the Moon, and will reappear at the bright limb; the former will take place at 8h. 3m. P.M., and the latter at 8h. 59m. P.M. The disappearance may be seen without the assistance of a telescope.

MERCURY is in the constellation Pisces till the 4th; in Cetus from the 5th to the 11th; in Pisces again from the 12th to the 16th; in Aries from the 17th to the 29th; and enters Taurus on April 30. He rises a few minutes before the Sun till the 16th, after which day the Sun rises before this planet. He sets before the Sun till the 18th; on the 19th, he sets 9 minutes after the Sun; on the 25th, he sets at 8h. 4m.; and on the last day, at 8h. 45m.: which times are 53 minutes, and 1h. 26m. after sunset respectively. Therefore, he is favorably situated for observation during a few evenings at the end of this month. He sets on the 22nd near W.N.W., and on the last day near N.W. by N. He moves eastward among the stars throughout the month; and is near Saturn on the 10th, the Moon on the 11th, Uranus on the 17th, and is in superior conjunction with the Sun on the 18th. His path among the stars, and his relative position to them is shown in the annexed diagram, which is a continuation of that inserted in February.

VENUS is in the constellation Pisces till the 6th; Aries from the 7th to the 26th; and in Taurus from the 27th.

She is an evening star, and sets on the 1st, at 7h. 9m. P.M.; on the 15th, at 7h. 54m. P.M.; and on the last day at 8h. 44m. P.M.; on the 2nd at the W. by N., and on the 17th at the W.N.W. points of the horizon. She is moving eastward among the stars throughout the month; is near Uranus on the 7th, and the Moon on the 13th. (See the diagram in last month, exhibiting her path in the heavens, and relative position to the stars near her path.) Her telescopic appearance has almost remained unchanged since January.

## PATH OF MERCURY FROM APRIL 1 TO MAY 5, 1850.



Scale, 24 degrees to one inch.

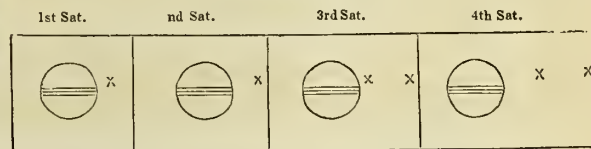
MARS is in the constellation Gemini throughout the month.

He is an evening star, and sets on the 1st, at 2h. 29m. A.M.; on the 15th, at 1h. 59m. A.M.; and on the last day, at 1h. 23m. A.M., between the N.W. and the N.W. by N. points of the horizon. He moves eastward among the stars, and is near the Moon on the 18th: his altitude above the horizon, when he souths on the 1st, is 64°; and on the last day, is 62°. (See the diagram in last month, showing his path among the stars.)

JUPITER is in the constellation Leo throughout the month. He sets on the 1st at 5h. 13m. A.M.; and on the last day at 3h. 15m. A.M., at the W. by N. point of the horizon. He souths at an altitude of 45° on the 1st, and of 46° on the last day. He moves slowly westward among the stars, and is near the Moon on the 22nd. (See the diagram in next month for his position with respect to neighbouring stars.)

JUPITER'S SATELLITES.—A few emersions of the first and second, and an immersion and emersion of the fourth, are visible. The relative position of the satellite to Jupiter at the instant of the eclipse is shown in the annexed diagram, as viewed through an inverting telescope.

## RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION OR EMERSION.



SATURN is in the constellation Cetus throughout the month. At the beginning of the month he rises, souths, and sets at the same time nearly as the Sun, and he is unfavourably situated for observation. He souths at an altitude of 41° nearly; he is near Mercury on the 10th, and the Moon on the 11th.

URANUS is in the constellation Pisces throughout the month. He is not favourably situated for observation.

NEPTUNE rises on the 1st, at 4h. 38m. A.M.; on the 15th, at 3h. 42m. A.M.; and on the last day, at 2h. 46m. A.M., midway between the E. by S. and the E.S.E. points of the horizon.

## ON THE APPARENT MOTIONS OF THE SUN, MOON, AND PLANETS.

FROM the monthly account of the motions of the celestial bodies, it will be remarked that the Sun, the Moon, and the planets are incessantly shifting their places. The stars, on the contrary, as has already been remarked in previous years, maintain the same relative positions, and thus act admirably as points of reference to indicate the positions and changes of position of the other heavenly bodies.

The apparent path of the Sun is from west to east; and, in his motion, he seems

(Continued on page 29.)

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.						JUPITER'S SATELLITES.				OCULTATIONS OF STARS BY THE MOON.										
	Mercury.		Venus.		Mars.		Jupiter.		Saturn.		Neptune.		Eclipses of				Names of the Stars.	Magni- tude.	Times of disappear- ance & re-appear- ance of the Star.	At which limb of the Moon.	Between what Latitudes visible.
	Morning.		Afternoon.		Afternoon.		Afternoon.		Afternoon.		Morning.		1st Sat.		2nd Sat.						
													Emerisou.		Im. I. Emer. E.						
1	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	D. H. M.	n. H. M.	n. H. M.	Aldebaran	1	{ 15 8 3 P.M.	Dark	10° N.		
6	11 9	0 33	5 55	10 28	0 6	9 55						1 9 30 P.M.	1 9 22 P.M. E.		{ 15 8 59 P.M.	Bright	83° N.				
11	11 22	0 36	5 45	10 7	Morning	9 37						8 11 24 P.M.	8 11 59 P.M. E.		{ 16 6 58 P.M.	Bright	56° N.				
16	11 37	0 40	5 36	9 46	11 31	9 16						16 1 18 A.M.	16 2 36 A.M. E.		{ 16 7 27 P.M.	Bright	3° S.				
21	11 55	0 44	5 28	9 24	11 14	8 57						24 9 41 P.M.			{ 16 7 26 P.M.	Dark	1° N.				
26	Aftern.	0 48	5 19	9 4	10 56	8 38									{ 16 8 13 P.M.	Dark	62° N.				
30	0 35	0 53	5 11	8 43	10 39	8 19									{ 16 8 20 P.M.	Bright	69° N.				
36	0 51	0 57	5 4	8 27	10 25	8 2									{ 22 7 28 P.M.	Bright	6° S.				
															4th Sat.						
															11 10 13 P.M. I.						
															12 1 30 A.M. E.						

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.															
Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.		
	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.	
LAST QUARTER	4D. 3H. 44M. P.M.														
NEW MOON	12 0 47 P.M.														
FIRST QUARTER	19 10 7 A.M.														
FULL MOON	26 11 20 A.M.														
APOGEE	5 4 A.M.														
PERIGEE	18 At Noon.														
1	23h. 47m	3° 53'	1h. 11m	6° 24'	6h. 33m	25° 27'	11h. 8m	7° 11'	0h. 44m	2° 18'	1h. 35m	9° 20'	22h. 32m	10° 2'	
6	0 20	0 1	1 34	8 51	6 44	25 13	11 6	7 22	0 46	2 32	1 36	9 26	22 32	9 59	
11	0 55	North.	1 57	11 12	6 54	24 57	11 5	7 32	0 48	2 47	1 37	9 33	22 33	9 56	
16	1 32	8 43	2 21	13 27	7 5	24 38	11 3	7 40	0 51	3 1	1 38	9 39	22 34	9 53	
21	2 11	13 15	2 45	15 34	7 16	24 15	11 2	7 47	0 53	3 15	1 39	9 45	22 34	9 50	
26	2 51	17 25	3 9	17 31	7 27	23 50	11 1	7 51	0 55	3 28	1 40	9 51	22 34	9 47	





APRIL.—ANGLING FOR SALMON.



## NOTES ON NATURAL HISTORY.—APRIL.

All day the low-hung clouds have dropt  
Their garner'd fulness down;  
All day that soft grey mist hath wrapt  
Hill, valley, grove, and town.  
The very earth, the steamy air,  
Is all with fragrance rife;  
And grace and beauty everywhere  
Are flushing into life.

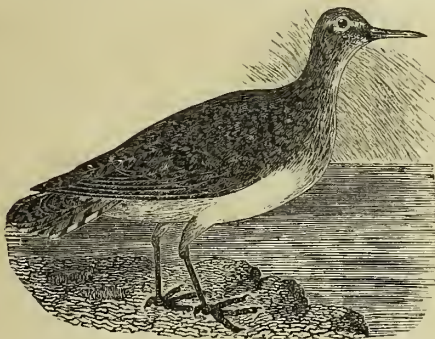
Down, down they come—those fruitful stores!  
Those earth-rejoicing drops!  
A momentary deluge pours:  
Then this, decreases, stops:  
And ere the dimples on the stream  
Have cleared out of sight,  
Lo! from the west, a parting gleam  
Breaks forth of amber light.

THESE lines admirably describe the appearance of an April day with its alternations of rain and sunshine, which seem as though nature were struggling to shake off the dominion of winter, and to welcome summer.

Many of the migratory birds return to England in this month, and especially the cuckoo, which,

    Hid in some bush, now sings her idle song,  
Monotonous, yet sweet; now here, now there;  
    Here! but rarely seen.

Other birds also make their appearance in April, and one of these, the common sandpiper, only stays from April till September. "The habits of the common sandpiper," Mr. Yarrell observes, "are interesting; its actions



COMMON SANDPIPER.

are lively, and it is mostly seen while running nimbly along the gravelly margins of rivers, brooks, lakes, or ponds. When on the ground it is in constant motion, flitting the tail up and down, and almost as frequently stretching out, and again withdrawing the head and neck. When disturbed and flushed, this bird utters a piping note on taking wing, which has been compared by Colonel Sykes to the sounds, *wheel, wheel, wheel*; and Mr. Selby says, that, from the resemblance to its well-known note, one of the provincial names of this species is Willy Wicket. This bird feeds on worms and insects. It is seldom seen on the sea shore, though it is fond of fresh water, and generally makes its nest in a hole in the bank of a stream. The female, when alarmed, tries all kinds of expedients to entice strangers from her nest, and, like the female lapwing, she affects lameness, or else runs with one wing hanging down as though it were broken, in order to divert the attention of a stranger from her brood. A correspondent of the *Magazine of Natural History*, after stating that the common sandpiper breeds in Lancashire, adds, "and I this year started an old one from her nest, at the root of a fir tree. She screamed out, and rolled about in such a manner, and seemed so completely disabled, that, although perfectly aware that her intention was to allure me from her nest, I could not resist my inclination to pursue her, and, in consequence, I had great difficulty in finding the nest again. It was built of a few dried leaves of the Weymouth pine, and contained three young ones, just hatched, and an egg, through the shell of which the bill of the young chick was just making its way; yet, young as they were, on my taking out the egg to examine it, the little things, which could not have been out of their shells more than an hour or two, set off out of the nest with as much celerity as if they had been running about a fortnight. As I thought the old one would abandon the egg if the young ones left the nest, I caught them, and covering them up with my hand for some time, they settled down again. Next day all four had disappeared." The full-grown sandpipers can swim and dive very well; and a writer on the subject says, that when a sandpiper, flying across a river, was attacked by a hawk, it instantly dived, and remained under water till the hawk had disappeared. It then emerged and rejoined its companions. It is said that when diving, this bird uses its wings under water the same as in flying; and on one occasion, when a sandpiper was shot at and wounded so that it fell near a brook, no sooner was it down than it ran as quickly as possible into the water, into which it plunged as a place of refuge. This bird is supposed to pass its winters generally in the south of Europe, but it has been found at Tangiers, in Asia Minor, and even in India.

In April the greater number of the wild flowers are in perfection, and, as Charlotte Smith sings,

The furze is yellow on the heath,  
The hawks with speckled flowers are gay,  
The crows are budding, and beneath  
The hawthorn soon will bear the wreath,  
The silver wreath of May.

The sloe and the bullace are now in flower in the hedges, and the birds are busy pecking off the opening buds of the hawthorn and other trees. In the gardens the birds generally attack the gooseberry bushes in this month, and they have no mercy on the crocuses and other spring flowers, the petals of which frequently look jagged and torn from the laceration of their little beaks. Towards the close of the month the wild heart's-ease appears in the meadows, and it may, perhaps, be interesting to mention that this plant first excited the attention of Bartram, a celebrated American botanist, to the study of plants. He was walking in a field in early spring, and chancing to see a wild heart's-ease, he gathered it, and went

on, thinking on various subjects, and carelessly plucking off the petals of the flower, without being well aware of what he was doing. He then chanced to cast his eye upon the remnant left in his hand, and was much struck with its singular appearance, as the stamens and pistil of the heart's-ease, when the petals have been stripped off, bear a considerable resemblance to a young bird when it has just issued from the shell. Bartram was so struck with this, that he gathered other flowers, and observing how curiously each was formed, he went home deeply impressed with the wonders of nature, and from that time he preferred the study of natural history to any other pursuit, and afterwards became the first botanist of America.

In gardens in warm and yet open situations, such as the garden of the London Horticultural Society at Chiswick, a number of beautiful plants are in flower. The spring gentian grows close to the ground, with its large bell-shaped flowers of the deepest and richest dark blue. The *Mahonia*, or ash berberry, forms an elegant little shrub, with bright dark green shining leaves, and a profusion of rich yellow clustered flowers. The Judas-tree (*Cercis Siliquastrum*) has a profusion of bright pink pea-like flowers, which are produced on the naked trunk and branches, appearing before the leaves. The *Magnolia conspicua*, or Yulan-tree, produces its large lily-like flowers, also before the leaves, and they appear in such profusion that the tree is sometimes completely covered with them, as if with a sheet. There was a large tree of this kind in a nursery at Kensington, near the entrance to Kensington Gardens, which, in April, 1827, was covered with upwards of eleven hundred flowers, and had a very singular effect when seen from the road on a moonlight night, as it looked like a white pyramid among the surrounding trees, so completely was it covered with blossoms. The *Wistaria*, or *Glycine sinensis*, is generally in all its beauty, with its racemes of shaded lilac flowers, in shape like those of the laburnum, which it generally precedes by a few days, the laburnum being followed by the *Robinia Pseud-Acacia*, the flowers of which are of the same shape, but of a different colour, being white slightly tinged with pink. Of all these trees, the *Wistaria* is perhaps the most beautiful, as its flowers are delicately shaded; they are also slightly fragrant, and they appear very early in spring, a second crop being often seen in August or September. Some varieties of the laburnum are also fragrant, and others are remarkably beautiful, from the great length of their drooping racemes of flowers. The *Robinia* or False Acacia, is the least beautiful of the three, though it also varies occasionally, and is sometimes much more ornamental than the others. The wild cherry comes into flower towards the middle of the month, and it is extremely ornamental in woods and pleasure-grounds, from the great profusion of its flowers.

Among the numerous insects that are found in gardens in April, may be mentioned the cuckoo-spit, or froth-fly, or frog-hopper; for by all these names is this curious insect popularly known. The names of cuckoo-spit and froth-fly both allude to the peculiar habit of the insect, when in the larva state, of enveloping itself in a kind of frothy secretion, somewhat resembling saliva, and which, indeed, was formerly supposed to be the saliva of the cuckoo, it being found on the young shoots of plants just about the time that the cuckoo is heard in the woods. The frothy secretion is supposed to be intended to preserve the tender body of the insect from the overpowering effects of the sun, as it has been observed to be produced in exact proportion to the heat of the weather. It is not known exactly how the froth is produced, but it is evidently only water, to which the insect gives its frothy appearance; a, when by any chance

it becomes condensed, it drops like rain from the trees on which the insect is found. It is only in its larva, or infant state, that it produces the froth. The larva and the pupa resemble the perfect insect, except that the larva has no wings, and the pupa has very small ones. The perfect insect, however, has both wings and wing-cases, and it has the power of flying to a considerable distance. Sometimes, indeed, these insects are seen in vast multitudes on the wing. Professor Welsh states (as quoted by Messrs. Kirby and Spence), "that one night, about eleven o'clock, sitting in his study, his attention was attracted by what seemed the pelting of hail against his window, which surprised him by its long continuance; he opened the window, and found the noise was occasioned by a flight of the froth frog-hopper, which entered the room in such numbers as to cover the table. From this circumstance, and the continuance of the pelting, which lasted at least half an hour, an idea may be formed of the vast host of these insects passing over. It passed from east to west; and, as his window faced the south, the insects only glanced against it obliquely." One of the peculiarities of this insect is its power of leaping, which is so great, that, being assisted by its wings, it will sometimes leap a distance of five or six feet, which, as Messrs. Kirby and Spence observe, is more than two hundred and fifty times its own length, or as much as if a man were to take a leap a quarter of a mile high. This extraordinary activity appears to be principally occasioned by the great length of the thighs of the insect, which are also furnished on their outer margin with a fringe of stiff hairs or strong spines, which are of great use to the insect in leaping. The insect, when about to leap forward, places its hind thighs nearly erect, keeping them close to the body; it next with great violence kicks them out backwards, so as to stretch the leg in a right line, and to press the spines upon the ground; the spines then lay hold of the surface, and by their pressure enable the body to spring forwards. The great assistance afforded by the spines is clearly shown by the fact that, when the insect is on glass, of which the spines cannot catch hold of the surface, it cannot leap more than six inches.



PERFECT INSECT OF THE CUCKOO-SPIT.



CUCKOO-SPIT.

a, The frothy substance. b, The pupa.

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About this season, if the buds of the rose-trees are examined just as the leaves are beginning to unfold, a little brown speck will be found attached to them here and there, looking like a seed. This is a case which conceals the larva or caterpillar of a very small moth (*Pinea rhodopagella*). The larva is very destructive, and when it has devoured one leaf, it removes with its case to another. It is very small, being only a few lines long, and yellow, with a black head, and a ring of black spots round the body near to the head. When it goes into the pupa state, it only enlarges a little the case in which it lived while it was a caterpillar. The moth is very small; its body is of a silvery grey, and its upper wings are covered with small black dots. This caterpillar is most troublesome in the flower-pit, where it appears on rose-trees in pot, which are intended for early flowering; but though it is not a native of this country, it is now frequently found on rose-trees in the open air. Insects are very abundant at this season, probably for two reasons: first, that they can feed most easily upon the leaves when they are first developed; and, secondly, because they are wanted to feed the number of young birds which are hatched in early spring.





MAY

M	W	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.				MOON.				DURATION OF MOONLIGHT.				HIGH WATER				Day of the Year.
			Rises.	Before 12 o'Clock.	Height above horizon	Sets.	Rises.	Before 12 o'Clock.	Height above horizon	Sets.	Before Sunrise.	O'Clock.	After Sunset.	At O'Clock.	Morning.	Afternoon			
D	D		h. m.	m. s.	Deg.	h. m.	h. m.	Deg.	h. m.	h. m.	Deg.	h. m.	1h. 2h. 3h.	1h. 2h. 3h.	9h. 10h. 11h.	h. m.	h. m.		
1	W	<i>Philip. James</i>	4 35	3	53 $\frac{1}{2}$	7 21		3 44	18 $\frac{1}{2}$	8	2				19	4 55	5 10	121	
2	Th	Day inc. 7h. 5m.	4 33	3	11 53 $\frac{1}{2}$	7 23	0 15	4 33	18 $\frac{1}{2}$	8	53				20	5 30	5 50	122	
3	F	Invent. of Cross.	4 31	3	17 54 $\frac{1}{2}$	7 24	0 56	5 20	20	9	47				21	6 10	6 35	123	
4	S	[5th S. aft. East.	4 29	3	24 54 $\frac{1}{2}$	7 26	1 33	6 7	21 $\frac{3}{4}$	10	46				22	7 0	7 25	124	
5	S	ROGATION SUN.	4 28	3	30 54 $\frac{1}{2}$	7 27	2 3	6 53	24 $\frac{1}{2}$	11	49				23	7 55	8 40	125	
6	M	<i>St. John Evan.</i>	4 26	3	35 55	7 29	2 30	7 38	28		Afternoon				24	9 15	9 55	126	
7	Tu	Beta Leonis souths 8h 40m P.M.	4 24	3	39 55 $\frac{1}{2}$	7 30	2 55	8 24	31 $\frac{3}{4}$	2	3				25	10 30	11 5	127	
8	W	East. Term ends	4 22	3	43 55 $\frac{1}{2}$	7 32	3 18	9 9	36 $\frac{1}{4}$	3	12				26	11 35	No Tide.	128	
9	Th	ASCENSION DAY.	4 21	3	47 55 $\frac{1}{2}$	7 33	3 41	9 56	40 $\frac{3}{4}$	4	23				27	0 5	0 25	129	
10	F	[ <i>Holy Thursday</i>	4 19	3	50 56	7 35	4 7	10 45	45 $\frac{1}{2}$	5	38				28	0 45	1 5	130	
11	S	Spica Virginis souths 10h 0m P.M.	4 17	3	52 56 $\frac{1}{2}$	7 36	4 31	11 37	49 $\frac{3}{4}$	6	54				29	1 30	1 45	131	
12	S	SUN. aft. Asc. DAY	4 15	3	54 56 $\frac{1}{2}$	7 38	5 5	Afternoon	53 $\frac{1}{2}$	8	11				1	2 5	2 25	132	
13	M	Old May Day.	4 14	3	55 56 $\frac{3}{4}$	7 39	5 42	1 29	56 $\frac{1}{2}$	9	25				2	2 45	3 5	133	
14	Tu	Length of day 15h 29m	4 12	3	55 57	7 41	6 28	2 28	58 $\frac{1}{2}$	10	32				3	3 30	3 45	134	
15	W	Length of night 8h 29m	4 11	3	55 57 $\frac{1}{2}$	7 42	7 23	3 29	58 $\frac{1}{2}$	11	32				4	4 10	4 30	135	
16	Th	Day breaks 1h 0m	4 10	3	55 57 $\frac{1}{2}$	7 44	8 28	4 28	57 $\frac{1}{2}$		Morning.				5	4 50	5 15	136	
17	F	Twilight ends 11h 0m P.M.	4 8	3	55 57 $\frac{3}{4}$	7 45	9 39	5 26	54 $\frac{1}{2}$	0	20				6	5 45	6 10	137	
18	S	Ox. Term ends	4 6	3	52 58	7 47	10 54	6 21	51	1	2				7	6 40	7 10	138	
19	S	WHIT SUNDAY	4 5	3	50 58 $\frac{1}{4}$	7 48	Afternoon	7 12	47	1	35				8	7 45	8 20	139	
20	M	Whit Monday	4 4	3	47 58 $\frac{1}{2}$	7 49	1 24	8 2	42 $\frac{1}{2}$	2	1				9	9 5	9 40	140	
21	Tu	Whit Tuesday	4 3	3	44 58 $\frac{3}{4}$	7 50	2 38	8 50	37 $\frac{1}{2}$	2	27				10	10 15	10 50	141	
22	W	Ember Week	4 2	3	40 58 $\frac{3}{4}$	7 52	3 49	9 37	33 $\frac{1}{4}$	2	49				11	11 25	11 55	142	
23	Th	Camb. Term div.	4 0	3	36 59	7 53	5 1	10 25	29	3	14				12	No Tide.	0 20	143	
24	F	Qu Vic. born 1819	3 59	3	31 59 $\frac{1}{2}$	7 55	6 10	11 12	25 $\frac{1}{4}$	3	40				13	0 45	1 5	144	
25	S	Pr Helena b 1846	3 58	3	26 59 $\frac{1}{2}$	7 56	7 17	At Midnight.	22 $\frac{1}{4}$	4	6				14	1 30	1 50	145	
26	S	TRIN. SUNDAY	3 57	3	20 59 $\frac{3}{4}$	7 58	8 21	Morning.	—	4	38				15	2 10	2 30	146	
27	M	King George I. b.	3 56	3	13 59 $\frac{3}{4}$	7 59	9 18	0 49	20	5	14				16	2 50	3 5	147	
28	Tu	[ <i>Ven. Bede</i>	3 55	3	7 60	8 0	10 10	1 38	18 $\frac{3}{4}$	5	55				17	3 25	3 40	148	
29	W	K. Chas. II. rest.	3 54	2	59 60 $\frac{1}{4}$	8 1	10 57	2 26	18 $\frac{1}{2}$	6	42				18	4 0	4 15	149	
30	Th	<i>Corpus Christi</i>	3 53	2	52 60 $\frac{1}{4}$	8 2	11 34	3 15	19 $\frac{1}{2}$	7	37				19	4 35	4 50	150	
31	F	Arcturus souths at 9h 32m P.M.	3 52	2	43 60 $\frac{1}{2}$	8 3	Morning.	4 2	20 $\frac{3}{4}$	8	35				20	5 10	5 30	151	



# THE ILLUSTRATED LONDON ALMANACK FOR 1850.

## MAY.

THE SUN is situated north of the Equator; and on the 21st, at 11h. 25m. A.M., passes from the sign Taurus to Gemini (the Twins), having been in the former sign 31 days and 9 minutes. He rises on the 1st at 1 $\frac{1}{4}$  N. of E.N.E., and on the 25th at N.E. by N. He sets on the same days at 1 $\frac{1}{4}$  N. of W.N.W., and near the N.W. by N. points of the horizon. On the first day he is 95,785,000 miles distant from the Earth.

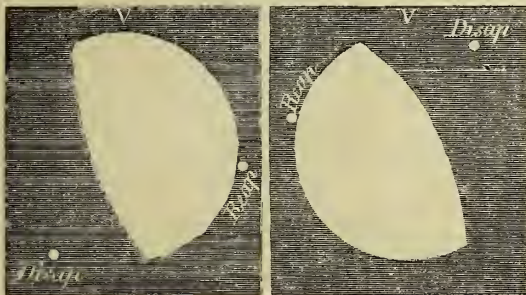
The MOON is in Sagittarius till the morning of the 3d, then passes into Capricornus, and into Aquarius on the morning of the 5th; into Pisces near midnight on the 6th; into Cetus on the morning of the 8th; and till the evening of the 11th she is moving on the boundaries of Cetus, Pisces, and Aries. On the 11th, at about 10h. P.M., she passes into Taurus, and crosses the Milky Way during the 14th: she enters Gemini on the 15th; Cancer on the 16th; Leo on the 17th; Virgo on the 20th; Libra on the 23d; Scorpio on the 25th; Ophiuchus, near midnight, on the 25th; Sagittarius on the 28th; and Capricornus on the 29th.

She is above the horizon when the Sun is below, during the morning hours, for a few days at the beginning of the month, and for several days at the end of the month; and during the evening hours, from the 13th to the 26th.

She is at her extreme south declination on the 1st; on the Equator on the 8th; at her extreme north declination on the 15th; on the Equator again on the 21st; and reaches, a second time this month, an extreme south declination on the 28th.

She is near Saturn on the 9th; Uranus on the 10th; Mercury and Venus on the 13th; Mars on the 16th; and Jupiter on the 19th.

### OCCULTATION OF JUPITER BY THE MOON ON MAY 19, 1850, AS SEEN BY A TELESCOPE WHICH



Does not invert.

Does invert.

The planet will disappear at the un-illuminated limb, and will reappear at the bright limb. To observe these phenomena, a good telescope will be necessary, as the Sun will be above the horizon at the time of their occurrence. The disappearance takes place at 6h. 32m. P.M., and the reappearance at 7h. 37m. P.M. After sunset, the planet will be seen situated north of the Moon's bright limb.

MERCURY is in the constellation Taurus throughout the month.

He is an evening star, and sets on the 1st at 8h. 53m.; on the 5th, at 9h. 20m.; on the 10th, at 9h. 41m.; on the 15th, at 9h. 57m.; on the 20th, at 9h. 55m.; on the 25th, at 9h. 41m.; and on the last day, at 9h. 6m. On the 1st, the Sun sets earlier than this planet by 1h. 32m.; on the 5th, by 1h. 53m.; on the 10th, by 2h. 10m.; on the 13th, 14th, and 15th, by 2h. 15m.; on the 20th, by 2h. 6m.; on the 26th, by 1h. 45m.; and on the last day, by 1h. 3m. These intervals of time are the largest in the year; and the planet is most favourably situated for observation between the 5th and the 25th, and particularly about the middle of this month. On any clear evening after sunset he may readily be seen. He sets on the 1st at N.W. by N.; and during the month he sets between this point and N.W. He is moving eastward till towards the end of the month, when he is stationary among the stars. He is near Venus on the 2d; the Moon on the 13th; and Venus again on the 22d. He is at his greatest eastern elongation on the 16th. His position among the stars will be seen in the diagram in July, which is a continuation of his path from that inserted in April.

VENUS is in the constellation Taurus till the 26th, and in Gemini from the 27th. She is crossing the Milky Way from the 21st to the 31st.

She is an evening star, and sets on the 1st, at 8h. 48m. P.M.; on the 15th, at 9h. 28m. P.M.; and on the 31st, at 10h. 2m. P.M.; on the 7th, near the N.W. by

N. point of the horizon. She is moving eastward among the stars; is near Mercury on the 2d, the Moon on the 13th, and Mercury again on the 22d. For her path in the heavens see the diagram in next month. Her telescopic appearance is almost that of a circle, and very little larger than that shown in January.

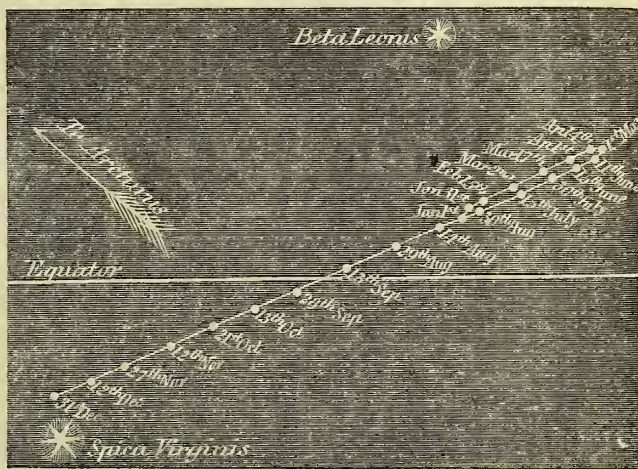
MARS is in the constellation Gemini till the 6th. On this day he passes into Cancer.

He is an evening star, and sets on the 1st at 1h. 20m. A.M.; on the 15th, at 0h. 46m. A.M.; and on the last day, at 0h. 5m. A.M.; near the N.W. by N. till the 20th day, and at the N.W. by N. on the 21st. For his path in the heavens see the diagram in next month.

JUPITER is in the constellation Leo throughout the month. He sets on the 1st, at 3h. 11m. A.M.; and on the last day, at 1h. 14m. A.M.; at the W. by N. point of the horizon. His altitude on south is 46 $\frac{1}{2}$ ° on the 1st, and is 46° on the last day. He is nearly stationary among the stars till towards the end of the month, when he begins to move slowly eastward, and is near the Moon on the 19th. His path among the stars, and his relative position to stars near him throughout the year, are shown in the annexed diagram.

JUPITER'S SATELLITES.—A few emersions of the first and second, and an immersion and emersion of the third, are visible. The relative position of the same

### PATH OF JUPITER THROUGHOUT THE YEAR 1850.



Scale, 12 degrees to one inch.

tellite to Jupiter, at the instant of the eclipse, is shown in the annexed diagram, as viewed through an inverting telescope.

### RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION OR EMERSION.

1st Sat.	2nd Sat.	3rd Sat.	4th Sat.

SATURN is in the constellation Pisces throughout the month.

He is a morning star, and rises E. by N. at 3h. 58m. A.M. on the 1st; at 3h. 6m. A.M. on the 15th; and at 2h. 6m. A.M. on the last day. He souths at an altitude of 42 $\frac{1}{2}$ ° nearly.

URANUS is in the constellation Aries throughout the month. He rises nearly midway between the E. by N. and the E.N.E. points of the horizon on the 1st day, at 4h. 5m. A.M., and on the last day at 2h. 15m. A.M.

NEPTUNE rises on the 1st, at 2h. 42m. A.M.; on the 15th, at 1h. 46m. A.M.; and on the last day, at 0h. 44m. A.M., midway between the E. by S. and the E.S.E. point of the horizon.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.						JUPITER'S SATELLITES.						OCCULTATIONS OF STARS BY THE MOON.										
	Mercury.		Venus.		Mars.		Jupiter.		Saturn.		Neptune.		Eclipses of						Names of the Stars.	Magni- tude.	Times of disappear- ance & re-appear- ance of the Star.	At which limb of the Moon.	Between what Latitudes visible.
	Afternoon		Afternoon		Afternoon		Afternoon		Morning.		Morning.		1st Sat.		2nd Sat.								
													Emersion.		Im. I. Emer. E.								
1	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	P. H. M.	D. H. M.	P. H. M.	D. H. M.	P. H. M.	D. H. M.	P. H. M.	D. H. M.	P. H. M.	D. H. M.		
6	0 55	0 58	5 2	8 23	10 21	7 59	1 11 35 P.M.	3 9 9 P.M. E.				9 1 30 A.M.	10 11 47 P.M. E.										
11	1 23	1 9	4 46	7 43	9 46	7 21	17 9 53 P.M.					24 11 48 P.M.	3rd Sat.										
16	1 28	1 16	4 37	7 24	9 29	7 2								5 9 45 P.M. E.									
21	1 26	1 23	4 29	7 4	9 11	6 41								12 10 37 P.M. I.									
26	1 15	1 29	4 21	6 45	8 53	6 22																	
31	0 56	1 36	4 13	6 27	8 35	6 2																	

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.			Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.															
				MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.			
				Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion North.	Right Ascension	Declina- tion South.
LAST QUARTER	4d. 10h. 46m. A.M.	1	3h. 31m	20° 49'	3h. 34m	19° 16'	7h. 39m	23° 22'	11h. 0m	7° 54'	0h. 57m	3° 42'	1h. 41m	9° 57'	22h. 35m	9° 45'			
NEW MOON ..	11 11 9 P.M.	6	4 7	23 14	3 59	20 49	7 50	22 50	10 59	7 56	0 59	3 55	1 43	10 3	22 35	9 43			
FIRST QUARTER	18 3 52 P.M.	11	4 39	24 38	4 25	22 48	8 2	22 15	11 0	7 55	1 2	4 7	2 14	10 9	22 35	9 42			
FULL MOON ..	26 0 8 A.M.	16	5 3	25 7	4 51	23 11	8 13	21 37	11 0	7 53	1 4	4 19	1 45	10 15	22 36	9 41			
APOGEE ..	2 At Midnight.	21	5 21	24 53	5 17	23 58	8 25	20 56	11 1	7 49	1 6	4 30	1 46	10 20	22 36	9 40			
PERIGEE ..	14 8 P.M.	26	5 30	24 3	5 44	24 28	8 36	20 12	11 1	7 43	1 7	4 41	1 47	10 26	22 37	9 39			
APOGEE ..	30 5 P.M.																		





MAY.—MACKEREL FISHING.—BRIGHTON BOATS.



NOTES ON NATURAL HISTORY.—MAY.

Among all the songsters of the grove at this season, one of the most delightful is the fauvette, or garden warbler. It is not very abundant in England, but in



GARDEN WARBLER, OR FAUVETTE.

Belgium it is a great favourite; and it is, probably, oftener in this country than people are aware of, as it is a very shy, timid bird, and it is very difficult to obtain a sight of it. In Belgium it is frequently kept in a cage; and its song is found very little inferior to that of the nightingale. Some of the notes have a peculiar softness and sweetness, while others are more loud and powerful, and others remarkably quick and lively. "It first visits us," says Sweet, "in the spring, about the latter end of April, or the beginning of May; and its arrival is soon made known by its very loud and long song. It generally begins very low, not unlike the song of the swallow, but raises it by degrees until it resembles the song of the blackbird, singing nearly all through the day, and the greater part of the time it stays with us, which is but short, as it leaves us again in August. In confinement it will sing nearly all through the year if it be treated well." In a wild state the fauvette is found in gardens and plantations, where it feeds chiefly on fruits, devoting only one kind of caterpillar, which, singularly enough, seems to be eaten by no other bird, viz. the caterpillar of the cabbage-butterfly. It is said to eat as many as from six to ten of these caterpillars in one day. It is particularly fond of strawberries, and will attack cherries even before they are ripe.

The long-tailed titmouse generally builds in this month. These are pretty little birds, and their nest is curiously constructed, as it generally hangs about five feet from the ground, and is of a very curious and singular form, about the size of a small melon, with a hole on one side through which the parent bird enters. The long-tailed titmouse may often be seen on a fine day in May flying round and round after one another, as if they were having a game at play. They are generally found in parties of ten or more together, the birds belonging to a brood having the habit of continuing together after they have attained their full size.

There the green thorn her silver buds  
Expands to May's enlivening beam;  
Hottaria blushes on the flood;  
And where the slowly trickling stream  
'Mid grass and spiny rushes glides,  
Her lovely flowers the Buckbeam hides.

Wound in the hedgerow's oaken boughs,  
The Woodbine's tassels float in air;  
And, blushing the uncultured Rose,  
Hangs high her beauteous blossoms there;

Her fillets there the Nightsbade weaves,  
And the Bryonia winds her scollop'd leaves.

In the lone copse, or shadowy dale,  
Wild cluster'd knots of Harebells blow,  
And droops the Lily of the Vale,  
The Periwinkle's leaves below;  
The Orchis race with varied beauty see,  
Mock the gay Fly or the exploring Bee.



FLY ORCHIS.

Singular as are the shapes assumed by some of the orchideous epiphytes, those of the terrestrial *Orchidaceæ* are scarcely less extraordinary. These plants are abundant in woods on chalky soils, particularly in the chalk pits and on the chalk hills of Kent. The flowers of the genus *Orchis* are all very curiously formed: the germen, or incipient seed-vessel, is long and twisted, so as to supply the place of a footstalk to the flower; and the largest petal, which is made to point downwards, in consequence of the distortion of the germen, is by far the most conspicuous part of the flower, and is termed the lip. It is this lip which represents so many curious forms; and sometimes it takes so closely the resemblance of an insect, as to deceive even an experienced eye. In one species, the monkey orchis, the lip is deeply cut, and the flower takes the figure of a little man or monkey dancing, with a hood over his head. In the lizard orchis, the lip is cut into three parts, the centre one of which is very long, and represents the tail of the lizard, while the two shorter ones form no bad representation of its feet. In the man orchis, the flower stem seems hung all over with effigies of little yellow men with green hats. The hee orchis, the spider orchis, and the fly orchis have all very curiously-formed flowers, bearing a striking resemblance to the insects from which they take their respective names. The fly orchis is very abundant in the chalky districts of south Kent, where it is found with the bee orchis, but is easily distinguished from all the other kinds of the genus by the blue spot in the middle of that part of the lip which forms the back of the fly. All the species which resemble insects flower in May and June, and they are all very difficult to cultivate in gardens.

In this month the great round-leaved sallow is in flower, and is very ornamental. It is one of the few species he-

longing to the willow genus that prefer a dry soil, as most of the other kinds will only grow in marshy places, or where their roots can have free access to water. Above two hundred species of willow are known, and they vary in size from a shrub only two or three inches high, to timber trees fifty or sixty feet in size. Some of the smaller kinds are used for basket-making; and there are little islands in the Thames, called holts, set aside purposely for growing them. All the willows which are used for making baskets are called osiers, and those that have woolly leaves are called sallows, the true willows having long thin leaves. All the trees included in the genus belong to the true willows. In the neighbourhood of London, and in several other parts of Great Britain, the young people gather branches of the great sallow on Palm Sunday, which they carry in imitation of palm branches. The flowers of the willow have no petals, but they are ornamental from the rich golden colour of the anthers of their stamens.

In the insect world, the beetles are now particularly abundant. These creatures generally bury themselves in the ground during the winter, but at the first warmth of spring they creep out and seem to enjoy themselves in the beams of the sun. One of the most curious of the beetle tribe is the burying

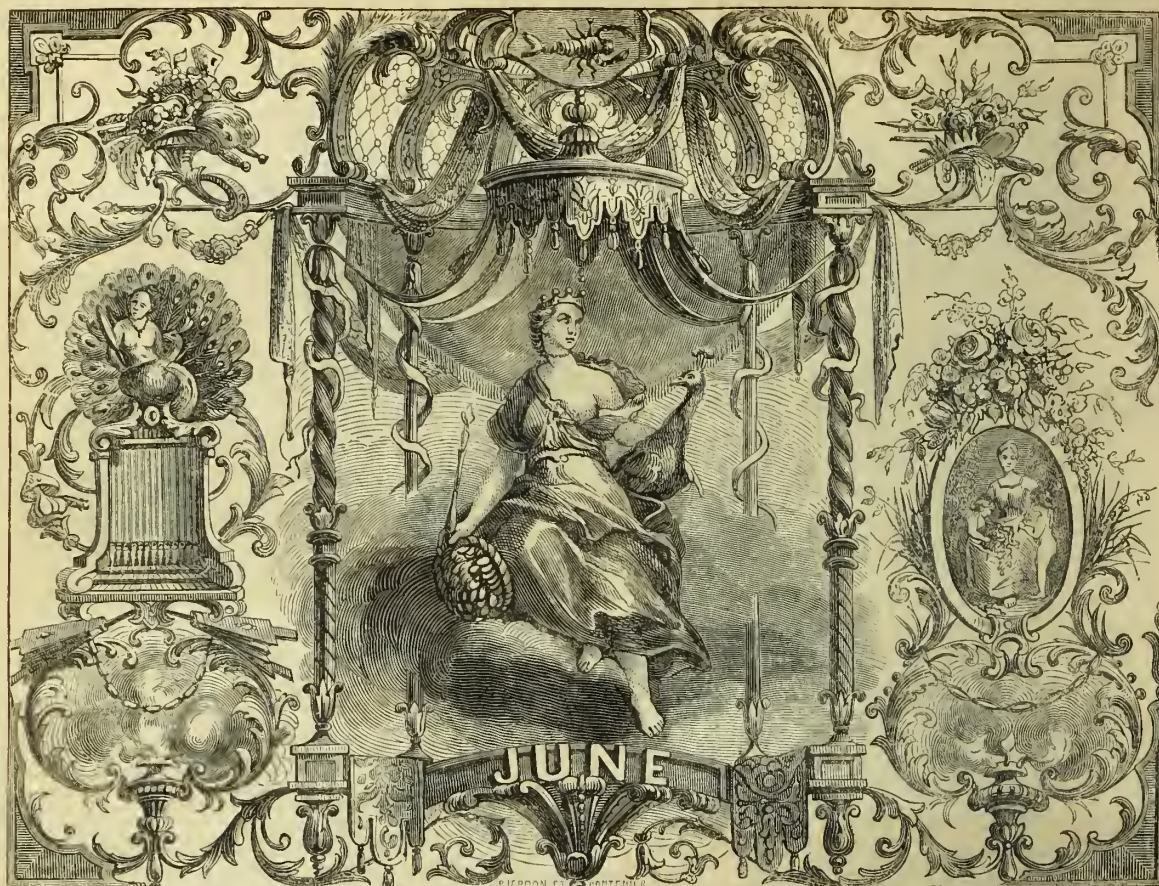


BURYING BEETLE.

beetle (*Necrophorus vespillo*), one of the marked peculiarities of which consists in the custom which these beetles have of interring small animals, such as mice and moles, for the purpose of depositing their eggs in the decaying carcase. At first sight it appears impossible that these beetles, which are only of a moderate size, could possibly contrive to bury creatures so much larger than themselves; but the manner in which it is done is very ingenious. The beetle first walks round the dead body, and seems to examine it carefully on every side. It then begins gradually to remove the earth from below the body, which slowly sinks into the hollow thus made, the beetle continuing to work below it till it has descended to a sufficient depth, after which the little labourer covers the body carefully with the loose soil it has thrown out during the process of excavation. The sense of smell of these beetles, like that of many other insects, is extremely delicate, and "no sooner has any of the smaller quadrupeds perished, than one or more of these gravediggers will make their appearance, and in a few hours the corpse will be interred." It may easily be supposed that the remarkable habits of these beetles were not even guessed at for some time; and, indeed, they were not known till 1752, when they were observed by M. Gleditsch, and a very interesting account is given of the mode in which he discovered this curious fact by Messrs. Kirby and Spence. M. Gleditsch had "often remarked that dead moles, when laid upon the ground, especially if upon loose earth, were almost sure to disappear in the course of two or three days, often of twelve hours. To ascertain the cause, he placed a mole upon one of the beds of his garden. It had vanished by the third morning; and on digging where it had been laid, he found it hurried to the depth of three inches, and under it four beetles which seemed to have been the agents in this singular inhumanity. Not perceiving anything particular in the mole, he buried it again; and on examining it at the end of six days he found it swarming with maggots, apparently the issue of the beetles, which M. Gleditsch now naturally concluded had hurried the carcase for the food of their future young. To determine these points more clearly, he put four of these insects into a glass vessel half filled with earth and properly secured, and upon the surface of the earth two frogs. In less than twelve hours one of the frogs was interred by two of the beetles: the other two ran about the whole day, as if busied in measuring the dimensions of the remaining corpse, which on the third day was also found hurried. He then introduced a dead linnet. A pair of the beetles were soon engaged upon the bird. They began their operations by pushing out the earth from under the body, so as to form a cavity for its reception; and it was curious to see the efforts which the beetles made by dragging at the feathers of the bird from below to pull it into its grave. The male having driven the female away, continued to work alone for five hours. He lifted up the bird, changed its place, turned it and arranged it in the grave, and from time to time came out of the hole, mounted upon it and trod it under foot, and retired below and pulled it down. At length, apparently wearied with this unintermitted labour, it came forth and leaned its head upon the earth beside the bird without the smallest motion as if to rest itself, for a full hour, when it again crept under the earth. The next day, in the morning, the bird was an inch and a half under ground, and the trench remained open the whole day, the corpse seeming as if laid out upon a bier, surrounded with a rampart of mould. In the evening it had sunk half an inch lower, and in another day the work was completed and the bird covered. M. Gleditsch continued to add other small dead animals, which were all sooner or later buried; and the result of his experiment was, that in fifty days four beetles had interred in the very small space of earth allotted to them, twelve carcases, viz. four frogs, three small birds, two fishes, one mole, and two grasshoppers, besides the entrails of a fish, and two morsels of the lungs of an ox. In another experiment a single beetle buried a mole forty times its own bulk and weight in two days. It is plain that all this labour is incurred for the sake of placing in security the future young of these industrious insects, along with a necessary provision of food. One mole would have sufficed a long time for the repast of the beetles themselves, and they could have more conveniently fed upon it above ground than below. But if they had left thus exposed the carcase in which their eggs were deposited, both would have been exposed to the imminent risk of being destroyed at a mouthful by the first fox or kite that chanced to espy them."

The caterpillar of the hawthorn butterfly is frequently very destructive at this season, feeding upon the young leaves as soon as the buds unfold, and stripping the trees so completely as to give them the appearance of winter even in early spring. The hawthorn butterfly very much resembles the cabbage butterfly; but the veins are black, and the under side of the wings is white, while the veins of the cabbage butterfly are white, and the under side of the wings is of a pale yellow. The hawthorn butterfly's eggs are of a pale yellow, and they are laid on leaves without any covering, but generally in rows close together. The caterpillars, when first hatched, are of a dirty yellow, with a black head, and a black ring just below it, and a brownish-red stripe on each side. They are gregarious, and spin a web on the leaf, under which they live until they have destroyed every portion of the cellular tissue, so that the leaves appear quite stripped off all the trees they have attacked. These caterpillars, however, appear only occasionally, and at intervals of sometimes several years in duration; and as birds are very fond of them, great numbers are devoured. Enough, however, remain to give a most singular appearance to the hawthorn trees which they have attacked, for as they devour the whole of the fleshy part of the leaf, leaving what may be called the skeleton, which serves to support the webs they have spun, the whole of the branches appear covered with a transparent drapery of a most singular description.





M	D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.				MOON				DURATION OF MOONLIGHT.				HIGH WATER		Day of the Year.
			SOUTH.				SOUTH.				SOUTH.				AT LONDON BRIDGE		
			Rises.	Before 12 o'Clock.	Height above horizon.	Sets.	Rises.	Before 12 o'Clock.	Height above horizon.	Sets.	Before Sunrise.	O'Clock.	After Sunset.	Morning	Afternoon		
1	S	Nicomede	h. m.	m. s.	Deg.	h. m.	h. m.	m. s.	Deg.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	
1	S	Nicomede	3 51	2 35	60 <sup>1</sup> / <sub>2</sub>	8 4	0 5	4 48	23	9 36				21	5 50	6 10	152
2	S	1st S. aft. TRIN.	3 51	2 26	60 <sup>3</sup> / <sub>4</sub>	8 5	0 34	5 33	26 <sup>1</sup> / <sub>2</sub>	10 40				22	6 35	6 55	153
3	M	Length of day 16h 16m	3 50	2 16	60 <sup>3</sup> / <sub>4</sub>	8 6	0 58	6 17	29 <sup>3</sup> / <sub>4</sub>	11 44				23	7 20	7 50	154
4	Tu	Length of night 7h 43m	3 50	2 6	61	8 7	1 22	7 23	34	Afternoon				24	8 25	9 0	155
5	W	King of Han. b	3 49	1 56	61 <sup>1</sup> / <sub>4</sub>	8 8	1 45	7 47	38 <sup>1</sup> / <sub>2</sub>	2 3				25	9 35	10 5	156
6	Th	Alpha Lihæ souths 9h 42m P.M.	3 48	1 46	61 <sup>1</sup> / <sub>4</sub>	8 9	2 8	8 34	43	3 13				26	10 35	11 5	157
7	F	Day inc. 8h. 38m.	3 47	1 35	61 <sup>1</sup> / <sub>4</sub>	8 10	2 33	9 23	47 <sup>1</sup> / <sub>2</sub>	4 28				27	11 35	At Midnight.	158
8	S	Spica Virginis souths 8h 9m P.M.	3 47	1 24	61 <sup>1</sup> / <sub>2</sub>	8 11	3 1	10 16	51 <sup>3</sup> / <sub>4</sub>	5 45				28	No Tide.	0 30	159
9	S	2ND S. aft. TRIN.	3 46	1 12	61 <sup>1</sup> / <sub>2</sub>	8 11	3 35	11 13	55 <sup>1</sup> / <sub>2</sub>	7 2				29	0 50	1 15	160
10	M		3 46	1 0	61 <sup>1</sup> / <sub>2</sub>	8 12	4 17	Afternoon	57 <sup>1</sup> / <sub>2</sub>	8 14				30	1 40	2 0	161
11	Tu	St. Barnabas	3 45	0 48	61 <sup>1</sup> / <sub>2</sub>	8 13	5 10	1 14	58	9 21				1	2 25	2 48	162
12	W	Trin. Term ends	3 45	0 36	61 <sup>1</sup> / <sub>2</sub>	8 14	6 12	2 17	58	10 16				2	3 10	3 35	163
13	Th	Arcturus souths 8h 40m P.M.	3 45	0 24	61 <sup>1</sup> / <sub>2</sub>	8 15	7 24	3 17	56	11 1				3	3 55	4 20	164
14	F	Length of day 16h 31m	3 45	0 11	61 <sup>1</sup> / <sub>2</sub>	8 16	8 40	4 15	52 <sup>3</sup> / <sub>4</sub>	11 37				4	4 45	5 10	165
15	S	Epsilon Bootis souths 9h 2m P.M.	3 44	After 12 o'clock.	61 <sup>1</sup> / <sub>2</sub>	8 16	9 56	5 9	48 <sup>3</sup> / <sub>4</sub>	Morning.				5	5 35	6 5	166
16	S	3RD S. aft. TRIN.	3 44	0 15	61 <sup>3</sup> / <sub>4</sub>	8 16	11 14	6 04	44 <sup>1</sup> / <sub>2</sub>	0 6				6	6 30	7 0	167
17	M	St. Alban	3 44	0 27	62	8 16	Afternoon	6 49	39 <sup>1</sup> / <sub>2</sub>	0 29				7	7 30	8 5	168
18	Tu	Alpha Coronæ Borealis sths 9h 41m P.M.	3 44	0 40	62	8 17	1 40	7 36	34 <sup>1</sup> / <sub>2</sub>	0 58				8	8 35	9 15	169
19	W	Alpha Serpentis souths 9h 46m P.M.	3 44	0 53	62	8 17	2 51	8 23	30 <sup>1</sup> / <sub>2</sub>	1 20				9	9 45	10 15	170
20	Th	Acces. Queen Vic.	3 44	1 6	62	8 18	3 59	9 9	26 <sup>1</sup> / <sub>2</sub>	1 46				10	10 50	11 20	171
21	F	Proclamation	3 44	1 19	62	8 18	5 7	9 57	23 <sup>1</sup> / <sub>2</sub>	2 10				11	11 50	No Tide.	172
22	S	[Summer com.	3 44	1 32	62	8 19	6 12	10 45	20 <sup>3</sup> / <sub>4</sub>	2 40				12	0 15	0 45	173
23	S	4TH S. aft. TRIN.	3 45	1 45	62	8 19	7 11	11 33	19	3 13				13	1 5	1 30	174
24	M	St. John Baptist	3 45	1 58	62	8 19	8 6	Morning.	—	3 53				14	1 50	2 10	175
25	Tu	[Midsum. Day	3 46	2 10	62	8 19	8 54	0 22	18 <sup>1</sup> / <sub>2</sub>	4 36				15	2 30	2 50	176
26	W	Length of day 16h 32m	3 46	2 23	62	8 18	9 34	1 10	18 <sup>3</sup> / <sub>4</sub>	5 29				16	3 5	3 25	177
27	Th	Antares souths 9h 57m P.M.	3 46	2 35	61 <sup>3</sup> / <sub>4</sub>	8 18	10 9	1 58	20	6 26				17	3 45	4 0	178
28	F	Q. Vic. cro. 1838	3 46	2 48	61 <sup>3</sup> / <sub>4</sub>	8 18	10 38	2 44	22	7 25				18	4 15	4 35	179
29	S	St. Peter	3 47	3 0	61 <sup>3</sup> / <sub>4</sub>	8 18	11 4	3 29	24 <sup>3</sup> / <sub>4</sub>	8 28				19	4 50	5 10	180
30	S	5TH S. aft. Trin.	3 47	3 12	61 <sup>3</sup> / <sub>4</sub>	8 18	11 26	4 14	28 <sup>1</sup> / <sub>2</sub>	9 33				20	5 30	5 45	181



# THE ILLUSTRATED LONDON ALMANACK FOR 1850.

## JUNE.

THE SUN is situated north of the Equator, and reaches his extreme position in north declination on the 21st. On this day, at 8h. P.M., he passes from the sign Gemini to Cancer (the Crab), having been in the former sign 31 days, 8 hours, and 25 minutes. He rises on the 1st at 1° N. of N.E. by N.; and on the 21st at 4° N. of the same point; and sets on the same days at 1° N. and 4° N. of N.W. by N. respectively. On the 1st day he is 96,375,000 miles distant from the Earth.

The Moon enters Aquarius on the 1st; Pisces on the 3rd; in and near Cetus, passing the boundaries of Pisces and Aries, on the 4th, 5th, 6th, and 7th; in Taurus on the 8th and 9th. She is crossing the Milky Way during the evening of the 10th; is in Gemini on the 11th; enters Cancer on the evening of the 12th; Leo on the 14th; Virgo on the 16th; Libra on the 20th; Ophiuchus on the 22nd; Sagittarius on the 24th; Capricornus on the 26th; Aquarius on the 28th; and Pisces on the 30th.

She is above the horizon when the Sun is below, during the morning hours, for a few days at the beginning of the month, and for several days towards the end of the month; and during the evening hours, from the 12th to the 26th.

She is on the Equator on the 5th, and going north; reaches her extreme north position on the 11th; then begins to move south; crosses the Equator on the 17th, near midnight; and reaches her extreme south position on the 25th.

She is near Saturn on the 5th; Uranus, on the 6th; Mercury, on the 10th; Venus, on the 12th; Mars, on the 14th; and Jupiter, on the 16th.

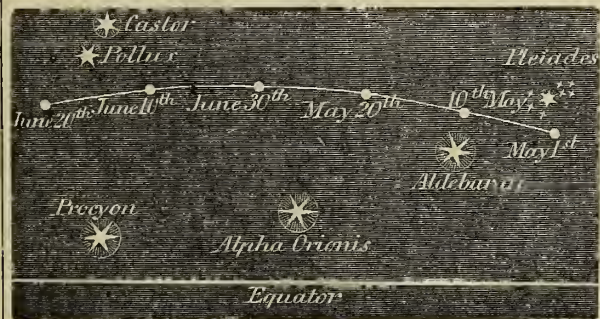
MERCURY is in the constellation Taurus all the month, and situated in the Milky Way.

On the 1st day he sets at 8h. 59m., and on the 7th at 8h. 14m. After this time the planet sets before the Sun sets. On the 15th this planet and the Sun rise together. On the 25th Mercury rises at 3h. 3m., being 43 minutes before the Sun; and which interval increases, till, on the last day the planet's rising precedes the Sun by one hour. On the 25th he rises midway between E.N.E. and N.E. by N. He moves westward among the stars till the 21st, and is stationary on the 22nd, and moves slowly eastward on the 23rd. He is near the Moon on the 10th. For his position in the heavens, see the diagram in next month.

VENUS is in the constellation Gemini till the 17th, and in that of Cancer from the 18th.

She is an evening star; and sets on the 1st, at 10h. 3m. P.M.; on the 15th, at 10h. 13m. P.M.; and on the last day at 10h. 5m. P.M. Till the 25th she sets between the N.W. by N. and the N.W.; and on the 26th at the N.W. by N.

PATH OF VENUS FROM MAY 1 TO JUNE 20, 1850.



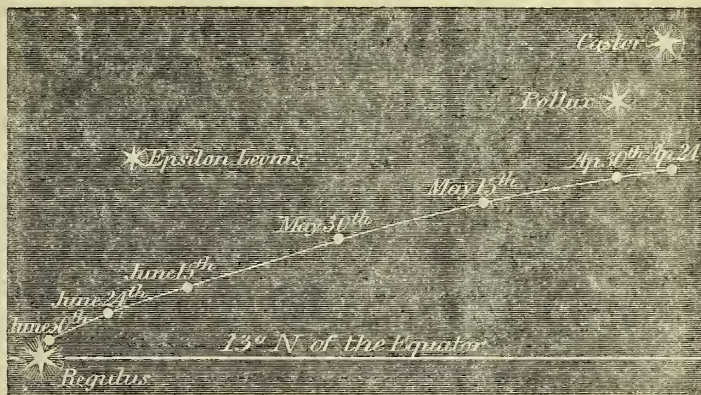
Scale, 24 degrees to one inch.

points of the horizon. She is moving eastward among the stars; is in perihelion on the 2nd, and is near the moon on the 12th. Her path among the stars is shewn in the annexed diagram, which is a continuation of that in March.

MARS is in the constellation Cancer till the 20th, on which day he passes to Leo.

He is an evening star, and sets on the 1st at 0h. 2m. A.M.; on the 15th, at 11h. 20m. P.M.; and on the last day at 10h. 40m. P.M.: near the N.W. by N. at the beginning of the month, and at the W.N.W. on the 29th. He is moving eastward among the stars; and is near the moon on the 11th. His altitude above the horizon when he souths on the 1st is 57°, and on the last day is 52°. His

PATH OF MARS FROM APRIL 24 TO JUNE 30, 1850.



Scale, 12 degrees to one inch.

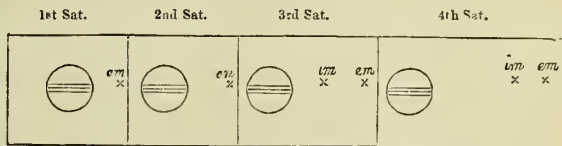
path in the heavens is shewn in the annexed diagram, which is continued from that in March.

JUPITER is in the constellation Leo throughout the month.

He sets on the 1st day at 1h. 10m. A.M., and on the last day at 11h. 19m. P.M., at the W. by N. point of the horizon. His altitude on the 1st is 46°, and is 44° on the last day. He moves slowly eastward among the stars, and is near the Moon on the 16th. For his path in the heavens, see the diagram in last month.

JUPITER'S SATELLITES.—A few eclipses only are visible. The relative position of the Satellite to Jupiter at the instant of the eclipse is shewn in the annexed diagram, as viewed through an inverting telescope.

RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION OR EMERSION.



SATURN is in the constellation Pisces throughout the month.

He is a morning star; and rises near W. by N. on the 1st, at 2h. 3m. A.M.; on the 15th, at 1h. 10m. A.M.; and on the last day, 13m. after midnight. He souths at an altitude of 44° nearly. He is near the Moon on the 5th. For his path in the heavens see the diagram in September.

URANUS is in the constellation Aries throughout the month.

He rises on the 1st at 2h. 12m. A.M., and on the last day at 0h. 20m. A.M. He is near the Moon on the 6th.

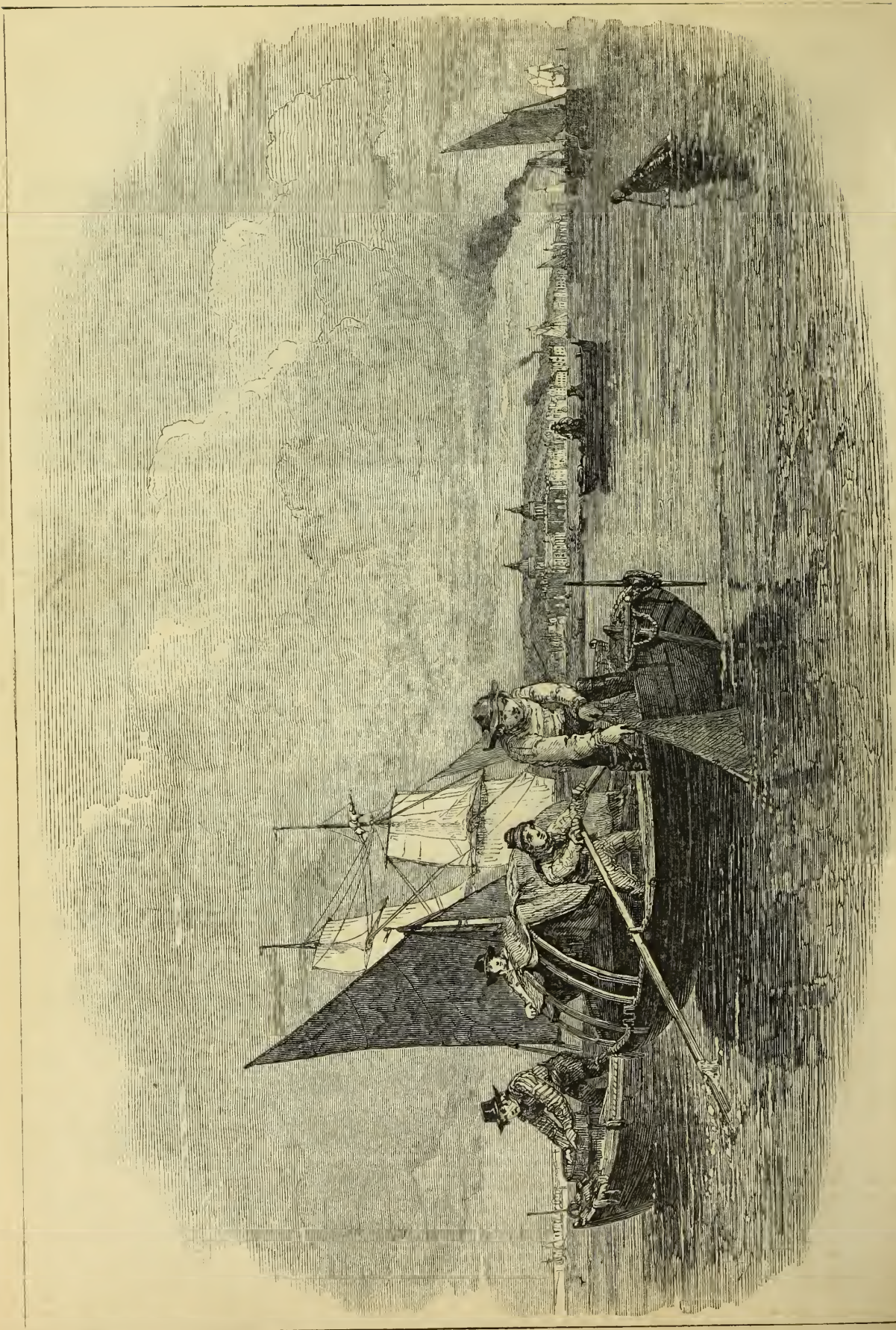
NEPTUNE rises on the 1st at 0h. 40m. A.M.; on the 15th, at 11h. 42m. A.M.; and on the last day, at 10h. 51m. A.M., midway between the E. by S. and the E.S.E. points of the horizon.

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.							JUPITER'S SATELLITES.				OCCULTATIONS OF STARS BY THE MOON.				
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.	Neptune.		Eclipses of				Names of the Stars.	Morph. of the Moon.	Times of disappearance & re-appearance of the Star.	At which limb of the Moon	Between what Latitudes visible.
	Afternoon	Afternoon	Afternoon	Afternoon	Morn'g.	Morning.		1st Sat.	3rd Sat.	Im.	I. Emer. E.					
1	0 51	1 38	4 11	6 23	8 32	5 59		9 10 6 P.M.	17 9 36 P.M. E.			42 Aquarii	6	2 1 22 A.M.	Bright	24° N. & 76° N.
6	0 23	1 45	4 3	6 5	8 14	5 39			24 10 32 P.M. I.					2 2 35 A.M.	Dark	
11	Morning	1 52	3 55	5 47	7 56	5 19						Chi Leonis	4	15 11 57 P.M.	Dark	25° N. & 90° N.
16	11 23	1 58	3 47	5 29	7 37	5 0								At the time of Emersion the Moon will be below the horizon		
21	10 59	2 4	3 39	5 11	7 19	4 40						29 Ophiuchi	6	23 1 56 A.M.	Dark	4° N. & 70° N.
26	10 42	2 10	3 31	4 54	7 1	4 20								23 2 32 A.M.	Bright	14° N. & 79° N.
30	10 35	2 14	3 24	4 40	6 46	4 1						70 Aquarii	6	30 0 37 A.M.	Dark	
								11 11 32 P.M.	17 10 25 P.M. I.					30 1 47 A.M.		

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.													
	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE	
	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.
1	5h. 29m.	22° 29'	6h. 16m.	24° 40'	8h. 50m.	19° 15'	11h. 2m.	7° 34'	1h. 10m.	4° 53'	1h. 48m.	10° 32'	22h. 36m.	9° 38'
6	5 22	20 57	6 43	24 30	9 2	18 24	11 4	7 25	1 11	5 2	1 48	10 36	22 36	9 38
11	5 10	19 29	7 9	24 2	9 13	17 31	11 5	7 14	1 13	5 11	1 49	10 41	22 36	9 38
16	5 0	18 28	7 36	23 17	9 25	16 35	11 7	7 2	1 14	5 19	1 50	10 45	22 36	9 39
21	4 56	18 8	8 1	22 16	9 36	15 36	11 9	7 49	1 16	5 26	1 51	10 49	22 36	9 40
26	4 59	18 31	8 27	20 59	9 48	14 35	11 11	6 34	1 17	5 32	1 51	10 52	22 36	9 41



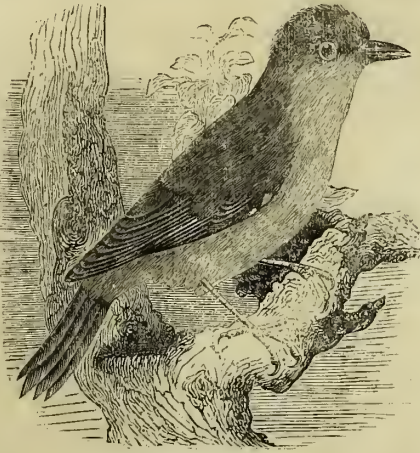


JUNE.—WHITEBAIT FISHING OFF GREENWICH.



## NOTES ON NATURAL HISTORY.—JUNE.

The month of June is one of the most cheerful in the year, for in it all nature seems in full enjoyment of the delights of summer before the oppressive heat of July and August is felt. In every direction crowds of young birds are trying their wings in short flights, chirping and twittering to each other, as though they were talking of the wonderful feat they were accomplishing, in venturing for the first time to fly alone. The blackcap hatches its young about this period, and it



BLACKCAP WARBLER.

seems particularly partial to gardens and orchards; where, during the whole period of incubation, it makes the air resound with its harmonious notes. It has usually a full, sweet, and yet deep and loud song, and it expresses such a great variety of modulations, as to exceed every other bird in that respect, except the nightingale. One of its notes is a particularly long, soft shake, which sinks gradually into the lowest strain, though every note is perfectly distinct; till, just as it is dying away, the cadence rises and swells into a full burst of loud and joyful melody. When the blackcap sings, its throat is wonderfully distended, and its little body apparently quivers with intense delight. The nest of this bird is generally placed in some low bush or shrub, and it is built in a very firm and compact manner. The eggs are four or five in number, of a pale reddish brown, mottled with spots of a darker hue. The blackcap is very fond of ivy berries, and generally makes its nest in an ivy bush, when one is to be met with not too high from the ground. Large flocks of young redstarts are frequently seen at this season, and they attract attention by their splendid plumage of grey, red, and black. The redstart is very fond of building in crevices in old walls, or in



YELLOW BIRD'S-NEST.

vases, or broken parts of statues, or any architectural ornament which may be placed in a garden. "If we visit, in the summer season," says Mr. Slaney, "any one of those old castles or monastic ruins, which give so much additional interest to many parts of our country, whilst the daws respond to each other with their appropriate melancholy call, as we walk round the ruined walls and fallen fragments, this elegant bird will often flit before us; and, standing on a broken battlement or moss-grown pillar, shake his bright plumage, as if in triumph over the works of man!" It is said that when the redstart first arrives in spring, it mounts to the top of the loftiest tree, where it will sit and sing for hours, beginning at daybreak. The song of this bird is short, and not very striking, but it will sing at night as well as in the daytime, and may be taught any tune that is whistled to it. The redstart is an active and restless bird, and, when singing, it shakes its tail with a rapid and tremulous motion.

The flowers of June comprise all the most beautiful of the floral world. There are, however, some plants which are common and even beautiful, but yet are comparatively little known; and the most remarkable of these are the different kinds of parasites, such as the dodder, the mistletoe, the bird's-nest, and several others. Of these parasites, the mistletoe is, perhaps, the most common. It grows on various kinds of trees, particularly on the hawthorn and the apple; and, though but very rarely, on the oak. It is said that when the Druids consecrated a grove of oak-trees, they always planted an apple orchard near it, in order that there might be a chance of the mistletoe spreading from the apple-trees to the oaks. When the Druids found the mistletoe growing on the oak, they went in solemn procession to cut it, which was always done with a golden knife, and the mistletoe was received in a piece of white linen, that had never been used for any other purpose. The Saxons, also, revered the mistletoe; and the following curious legend is related in the "Edda" respecting it. Balder (the Saxon Apollo)

wishing to visit earth, Friga, his mother (the Saxon Venus), was so afraid that some accident would happen to him, that she made everything that belonged to the earth, the air, or the water take an oath not to injure him. Unfortunately, however, she forgot the mistletoe, which belongs neither to the earth, nor the air, nor the water; and the evil spirit Loke, who wished to destroy Balder, killed him with a large branch of mistletoe. All nature was instantly overwhelmed with grief for the loss of the god of the sun; but at the end of three months, Thor (who was the Jupiter of the Saxons) restored Balder to life and placed the mistletoe under the sole control of Friga, that it might never injure her again. It was probably from the mistletoe being dedicated to the Saxon goddess of love, that it is hung up at Christmas, in country places, for people to kiss under. It was formerly supposed that the mistletoe could not be sown, but it is now found that a berry may be inserted in a crack in the bark of a tree, and then, if a piece of oiled paper be tied loosely over it, to preserve it from the birds, it will germinate.

Occasionally fields of clover are covered all over with a curious twining plant, which binds the stems together, and withers the leaves. The plant itself is pretty, from its pink stems, which twine together like a number of threads, and its elegant little flowers, which are also pinkish; but it is a most destructive weed, and destroys everything it takes hold of. It grows at first from the ground, but as soon as it has twisted itself round any unfortunate plant, it detaches its root from the earth, and draws all its nourishment from the plant it has taken hold of, and which it soon destroys. The yellow bird's-nest (*Montropa Hypopithys*) only vegetates on the roots of beech and fir-trees, and seems very seldom to perfect its seeds, which may account for the comparative scarcity of the plant. It has no leaves, but their place is supplied by brownish scales. The flowers are of a dingy yellow, at first all drooping on one side, but becoming erect in maturity. When dry the flowers smell like those of the common primrose; and they appear in June and July.

In June insects are most abundant of every kind and description, as some are just bursting into the perfect state, while others are caterpillars or pupæ. It is, indeed, almost impossible to enumerate them.

Though numberless these insect tribes of air,  
Though numberless each tribe and species fair,  
All have their organs, arts, and arms, and tools,  
And functions exercised by various rules.  
Their peaceful hours the loom and distaff know;  
But war, the force and fury of the foe,  
The spear, the falchion, and the martial mail,  
And artful stratagem, where strength may fail.—HENRY BROOKE.

Of all the stratagems employed by insects, perhaps the most curious are



THE ANT-LION.

those of the ant-lion (*Myrmoleon*). This insect in the larva state bears considerable resemblance to the wood-louse; and, as Messrs. Kirby and Spence observe, "if we looked only at its external conformation and habits, we should be apt to conclude it one of the most helpless animals in the creation. Its sole food is the juices of other insects, particularly ants; but, at the first view, it seems impossible that it should ever secure a single meal. Not only is its pace slow, but it can walk in no other direction than backwards; you may judge, therefore, what would be such a hunter's chance of seizing an active ant. Nor would a stationary posture be more favourable; for its grim aspect would infallibly impress upon all wanderers the prudence of keeping at a respectful distance." In this helpless condition instinct teaches the ant-lion to accomplish by artifice what it would otherwise have been quite unequal to. The female generally lays her eggs in a loose sandy soil, so that as soon as the larva is hatched it finds itself in the situation most suitable to it. Its first effort is to trace in the sand a circle; and this being done with wonderful exactness, it proceeds to excavate the cavity by throwing out the sand. "Placing itself in the inside of the circle which it has traced, it thrusts the hind part of its body under the sand, and with one of its fore-legs serving as a shovel, it charges its flat and square head with a load, which it immediately throws over the outside of the circle with a jerk strong enough to carry it to the distance of several inches." Walking backwards, and constantly repeating this process, it soon arrives at the part of the circle from which it set out. It then traces another furrow in the same manner, and then others, till it has excavated a conical hole rather more than two inches deep, about three inches wide at the top, and contracting to a point at the bottom. In the course of its labours, the ant-lion frequently meets with small stones, which it places on its head one at a time, and jerks off over the margin of the pit. If, however, the stone is too large, it contrives with great difficulty to get it on its back, and, keeping it in a "steady position by an alternate movement of the segments which compose that part, it carefully walks up the ascent with its burthen, and deposits it on the outside of the margin. When, as occasionally happens, the stone is round, the labour becomes more difficult and painful; and a spectator, watching the motions of the ant-lion, feels an inexpressible interest in its behalf. He sees it, with vast exertion, elevate the stone, and begin its arduous retrograde ascent; at every moment the burthen totters to one side or the other: the adroit porter lifts up the segments of its back to balance it, and has already nearly reached the top of the pit, when a stumble or a jolt mocks all its efforts, and the stone tumbles headlong to the bottom. Mortified, but not despairing, the ant-lion returns to the charge—again replaces the stone on its back—again ascends the side, and artfully avails itself, for a road, of the channel formed by the falling stone, against the sides of which it can support its load." In this manner it frequently tries without success, renewing its efforts again and again, till at last it either succeeds or abandons the hole in despair. When all is finished, the ant-lion buries itself in the sand at the bottom of its pit, only leaving exposed its two large horn-like forceps, with which it seizes its prey. No sooner does an ant or any other insect approach the edge of the cleverly-contrived slope, than the sand gives way, and the unfortunate insect, rolling to the bottom, is instantly seized, and, if not sufficiently powerful to make any resistance, it is as instantly killed, and its body, after it has been sucked dry, is tossed by a jerk of the head of the ant-lion beyond the immediate boundary of the cavity. Sometimes, however, it happens that a large and vigorous winged insect—such as a wasp, a bee, or a beetle—tumbles headforemost into the pit; and, when this is the case, a tremendous battle ensues, and "the result at last is, that either the ant-lion is dragged out of its den, and stung to death, or dropped upon the ground, and left a prey to birds, or that the winged insect is maimed, disabled, drawn into the sand, and slain. If an insect incapable of fight, or from its situation unable to use its wings, but of larger size than the *Myrmoleon* deems it prudent at once to seize upon, chances to fall into the snare, it is overwhelmed in its attempts to reascend by repeated showers of sand, which its enemy directs upon it with merriment aim." The showers of sand are thrown up by the head of the insect, and it is astonishing the quantity it conveys each time, and the force and precision with which it hurls its ammunition on the foe.





M	W	ANNIVERSARIES, OC- CURRENCES, FES TIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT.					HIGH WATER				Day of the Year.
			Rises.	SOUTH.			Sets.	Rises. Afternoon	SOUTH.			Sets. Morning.	Before Sunrise.			Moon's Age.	After Sunset.			At LONDON BRIDGE.		
				After 12 o'clock.	Height above horizon.	Deg.			Morning.	Height above horizon.	Deg.		1h.	2h.	3h.		O'Clock.	9h.	10h.	11h.	Morning.	
D	D		H.	M.	Deg.	H.	M.	H.	M.	Deg.	H.	M.	H.	M.				H.	M.	H.	M.	
1	M	[Visit. B.V. M.	3 49	3 23	61 $\frac{1}{2}$	8 18	11 49	4 57	32 $\frac{1}{2}$	10 37					21			6 5	6 25		182	
2	Tu	Ox. Act. & C. co.	3 49	3 35	61 $\frac{1}{2}$	8 17	Morning.	5 41	36 $\frac{1}{2}$	11 45					22			6 50	7 10		183	
3	W	Dog Days begin	3 50	3 46	61 $\frac{1}{2}$	8 17	0 10	6 26	41 $\frac{1}{2}$	Afternoon					23			7 40	8 5		184	
4	Th	Trans. St. Martin	3 51	3 57	61 $\frac{1}{2}$	8 16	0 35	7 13	45 $\frac{1}{2}$	2 5					24			8 40	9 15		185	
5	F	Camb. Term ends	3 52	4 8	61 $\frac{1}{2}$	8 16	1 0	8 3	49 $\frac{1}{2}$	3 20					25			9 45	10 15		186	
6	S	Ox. Term ends	3 53	4 18	61 $\frac{1}{2}$	8 15	1 30	8 56	53 $\frac{1}{2}$	4 35					26			10 50	11 20		187	
7	S	6TH S. aft. TRIN.	3 54	4 28	61 $\frac{1}{2}$	8 15	2 7	9 53	56 $\frac{1}{2}$	5 49					27			11 50	No Tide.		188	
8	M	Fire Insur. due	3 55	4 38	61 $\frac{1}{2}$	8 14	2 54	10 54	58 $\frac{1}{2}$	7 0					28			0 20	0 50		189	
9	Tu	Antares souths 9h 10m r.m.	3 56	4 47	61 $\frac{1}{2}$	8 14	3 50	11 57	58 $\frac{1}{2}$	8 0					29			1 15	1 40		190	
10	W	Alpha Herculis souths 9h 54m r.m.	3 57	4 56	60 $\frac{1}{2}$	8 13	5 0	Afternoon	57 $\frac{1}{2}$	8 52					1			2 6	2 30		191	
11	Th	Old St. Peter	3 58	5 5	60 $\frac{1}{2}$	8 13	6 15	2 1	54 $\frac{1}{2}$	9 39					2			3 0	3 25		192	
12	F	Alpha Ophiuchi souths 10h 6m r.m.	3 59	5 13	60 $\frac{1}{2}$	8 12	7 35	2 59	50 $\frac{1}{2}$	10 7					3			3 50	4 10		193	
13	S	Alpha Lyre souths 11h 6m r.m.	4 0	5 21	60 $\frac{1}{2}$	8 11	8 56	3 53	46 $\frac{1}{2}$	10 36					4			4 35	5 0		194	
14	S	7TH S. aft. TRIN.	4 1	5 28	60 $\frac{1}{2}$	8 10	10 13	4 44	41 $\frac{1}{2}$	11 2					5			5 25	5 50		195	
15	M	St. Swithin	4 2	5 34	60 $\frac{1}{2}$	8 9	11 28	5 33	36 $\frac{1}{2}$	11 26					6			6 15	6 40		196	
16	Tu	Beta Lyre souths 11h 7m r.m.	4 3	5 40	60 $\frac{1}{2}$	8 8	Afternoon	6 21	31 $\frac{1}{2}$	11 52					7			7 5	7 30		197	
17	W	Length of day 16h 3m	4 4	5 46	59 $\frac{1}{2}$	8 7	1 50	7 8	27 $\frac{1}{2}$	Morning.					8			8 0	8 30		198	
18	Th	Gamma Aquile souths 11h 53m r.m.	4 5	5 51	59 $\frac{1}{2}$	8 6	2 58	7 55	23 $\frac{1}{2}$	0 16					9			9 5	9 35		199	
19	F	Alpha Aquile souths 11h 53m r.m.	4 6	5 55	59 $\frac{1}{2}$	8 5	4 3	8 42	21 $\frac{1}{2}$	0 44					10			10 10	10 40		200	
20	S	St. Margaret	4 7	5 59	59 $\frac{1}{2}$	8 4	5 5	9 30	19 $\frac{1}{2}$	1 15					11			11 15	11 50		201	
21	S	8TH S. aft. TRIN.	4 9	6 2	59 $\frac{1}{2}$	8 3	6 0	10 18	18 $\frac{1}{2}$	1 52					12			No Tide.	0 20		202	
22	M	Magdalene	4 10	6 5	58 $\frac{1}{2}$	8 2	6 51	11 7	18 $\frac{1}{2}$	2 34					13			0 45	1 10		203	
23	Tu	Beta Aquile souths 11h 43m r.m.	4 11	6 7	58 $\frac{1}{2}$	8 0	7 33	11 55	19 $\frac{1}{2}$	3 25					14			1 35	1 55		204	
24	W	Alpha Herculis souths 9h 0m r.m.	4 12	6 9	58 $\frac{1}{2}$	7 58	8 10	Morning.	—	4 19					15			2 15	2 30		205	
25	Th	St. James	4 14	6 10	58 $\frac{1}{2}$	7 56	8 42	0 41	21 $\frac{1}{2}$	5 17					16			2 50	3 10		206	
26	F	St. Anne	4 15	6 10	58 $\frac{1}{2}$	7 54	9 9	1 27	23 $\frac{1}{2}$	6 19					17			3 25	3 40		207	
27	S	Alpha Ophiuchi souths 9h 7m r.m.	4 17	6 10	57 $\frac{1}{2}$	7 53	9 32	2 12	27 $\frac{1}{2}$	7 24					18			3 55	4 15		208	
28	S	9TH S. aft. TRIN.	4 19	6 10	57 $\frac{1}{2}$	7 51	9 54	2 56	30 $\frac{1}{2}$	8 29					19			4 30	4 45		209	
29	M	Length of night 5h 31m	4 21	6 8	57 $\frac{1}{2}$	7 50	10 16	3 39	34 $\frac{1}{2}$	9 34					20			5 5	5 20		210	
30	Tu	Alpha Lyre souths 9h 59m r.m.	4 23	6 6	57 $\frac{1}{2}$	7 49	10 39	4 23	38 $\frac{1}{2}$	10 41					21			5 40	5 55		211	
31	W	Day dec. 1h. 12m.	4 24	6 4	56 $\frac{1}{2}$	7 47	11 2	5 8	43 $\frac{1}{2}$	11 49					22			6 15	6 40		212	



## JULY.

THE SUN is situated N. of the Equator, and is moving south. On the 23d day, at 6h. 53m. A.M., he passes from the sign Cancer to Leo (the Lion), having been in the former sign 31 days, 10 hours, and 53 minutes. He rises on the 19th at N.E. by N., and sets at N.W. by N. On the 3rd day, his distance from the earth is 96,592,000 miles, being the greatest in the year.

The Moon passes into Cetus near midnight on the 1st, and moves near the boundaries of this constellation, and those of Pisces and Aries, till the 5th. After noon on this day she enters Taurus, crosses the Milky Way on the 8th, and enters Gemini; she passes into Cancer on the 10th, Leo on the 11th, Virgo on the 13th, Libra on the 17th, Ophiuchus on the 19th, Sagittarius on the 21st, Capricornus on the 24th, Aquarius on the 26th, Pisces on the 27th, and Cetus on the 29th.

She is above the horizon when the Sun is below, during the morning hours for a few days at the beginning, and for several days at the end of the month, and during the evening hours from the 11th to the 25th.

She is on the Equator on the 2nd, at her extreme north position on the 9th, on the Equator again on the 15th, at her extreme south position on the 22nd, and a third time on the Equator on the 30th.

She is near Saturn on the 3rd; Uranus, on the 4th; Mercury, on the 8th; Venus, on the 11th; Mars, on the 12th; Jnpiter, on the 13th; Saturn, on the 30th; and Uranus, on the 31st.

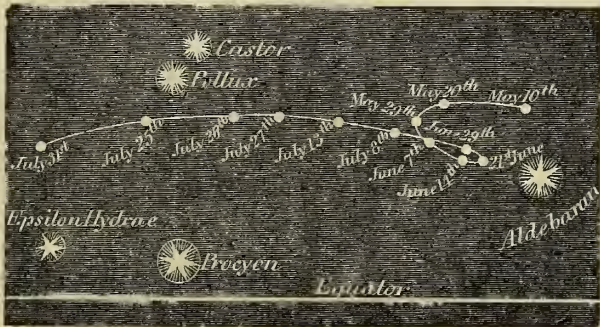
#### OCCULTATION OF MARS BY THE MOON, JULY 12, 1850, AS SEEN THROUGH A TELESCOPE WHICH



The disappearance will take place at the unilluminated limb of the Moon, and the reappearance at the illuminated limb, the former at 5h. 28m. P.M., and the latter at 6h. 33m. P.M.: at these times the Sun is above the horizon, and, therefore, these phenomena cannot be seen without the assistance of a telescope.

MERCURY is in the constellation Taurus till the 9th, in Gemini from the 10th to the 24th, and in Cancer after the 25th.

#### PATH OF MERCURY FROM MAY 10 TO JULY 31, 1850.



Scale, 24 degrees to one inch.

He is a morning star, and rises on the 1st at 2h. 45m.; on the 10th, at 2h. 35m.; on the 20th, at 3h. 2m.; and on the last day, at 4h. 14m. His times of rising precede those of sunrise by 1h. 4m. on the 1st; by 1h. 22m. on the 10th, 11th, and 12th; by 1h. 21m. on the 13th; by 1h. 5m. on the 20th; and by 10m. on the last day. He rises throughout the month a little north of the N.E. by N. point of the horizon. He moves eastward among the stars during the month, is at his greatest west elongation on the 4th, is near the Moon on the 8th, and is in superior conjunction with the Sun on the last day. His motion among the stars is shown in the preceding diagram, and his telescopic appearance this month is shown in December.

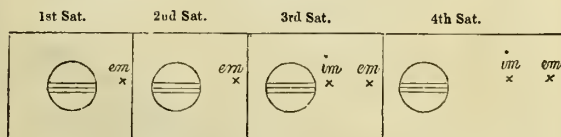
VENUS is in the constellation Cancer till the 4th, and in that of Leo from the 5th.

She is an evening star; and sets on the 1st, at 10h. 4m. P.M.; on the 15th, at 9h. 43m. P.M.; and on the last day, at 9h. 12m. P.M.; on the 16th at the W.N.W., and on the 31st at the W. by N. point of the horizon. She is moving eastward among the stars; is near the Moon on the 11th, Regulus on the 16th, and Mars on the 31st. For her path among the stars see the diagram in next month.

MARS is in the constellation Leo throughout the month. He is an evening star; and sets on the 1st at 10h. 37m. P.M.; on the 15th, at 9h. 56m. P.M.; and on the last day at 9h. 9m. P.M. He is moving eastward among the stars; is near Regulus on the 1st, the Moon on the 12th, and Venus on the last day. His altitude above the horizon, when he souths on the 1st, is 52°, and on the last day is 45°. For his path among the stars see the diagram in next month.

JUPITER is in the constellation Leo till the 29th, on which day he passes into Virgo. He sets on the 1st, at 11h. 15m. P.M.; and on the last day, at 9h. 26m. P.M., at the W. by N. point of the horizon. His altitude at the time of southing on the 1st is 44° $\frac{1}{2}$ ; and on the last day is 42° $\frac{3}{4}$ . He moves slowly eastward among the stars, and is near the Moon on the 13th. For his path among the stars during this month see the diagram in May.

#### RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION OR EMERSION.



SATURN is in the constellation Pisces throughout the month. He rises E. by N. on the 1st, at 9 minutes after midnight; on the 15th, at 11h. 11m. P.M.; and on the last day at 10h. 10m. P.M. After these times he is visible throughout the night. He souths at an altitude of 44° $\frac{1}{2}$  nearly. He is stationary among the stars from the middle of the month, and is near the Moon on the 3rd, and again on the 30th. (See the diagram in September).

URANUS is in the constellation Aries throughout the month. He rises on the 1st, at 0h. 15m. A.M.; and on the last day, at 10h. 15m. P.M. He is near the Moon on the 4th, and again on the 31st.

NEPTUNE rises on the 1st, at 10h. 47m. P.M.; on the 15th, at 9h. 54m. P.M.; and on the last day, at 8h. 45m. P.M.

#### ON THE APPARENT MOTIONS OF THE SUN, MOON, AND PLANETS.

(Continued from page 17.)

to fall daily behind the stars. If we observe the altitude of a group of stars above the eastern horizon at sunset, we shall find, on examining the position of the same stars a few days afterwards, that its elevation is increased, and that it has approached towards the meridian. After an interval of three months, the same group of stars would be on the meridian at the time of sunset; and, after this time, it will continue to advance nearer to the Sun, till it is lost in his splendour. After being invisible for some time, it will become visible in the morning, and situated westward of the Sun; and day by day this distance will increase, till, at the end of the year from the time of the first observation, their relative positions will be the same as on the first examination.

The path of the Sun will be seen, by referring to our monthly account, to be continuous in one direction, and oblique among the stars. About the 21st of March, the Sun is situated on the Equator; and, after this time, his north declination and his altitude above the horizon when southing, increase day by day (see the Calendar pages), till about June 22, when he reaches his greatest north

(Continued on page 33.)

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					
	Mercury.		Venus.		Mars.	
	Morning.	Afternoon	Afternoon	Afternoon	Afternoon	Afternoon
1	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
6	10 34	2 15	3 22	4 36	6 42	4 0
11	10 33	2 19	3 14	4 19	6 23	3 40
16	10 41	2 23	3 6	4 2	6 4	3 20
21	10 57	2 26	2 58	3 46	5 46	3 0
26	11 18	2 29	2 49	3 29	5 26	2 41
31	11 43	2 31	2 41	3 12	5 7	2 21
	Aftern.	2 33	2 33	2 56	4 48	2 1

#### JUPITER'S SATELLITES.

Eclipses of		
1st Sat.	2nd Sat.	
Immersion.	Immersion.	
n. h. m.	n. h. m.	
2 10 19 P.M.	6 8 40 P.M.	
18 8 37 P.M.		

#### OCCULTATIONS OF STARS BY THE MOON.

Names of the Stars.	Magnit. tude.	Times of disappearance & re-appearance of the Star.	At which limb of the Moon.	Between what Latitudes visible.
Mars		{ 12 5 28 P.M. 12 6 33 P.M. 15 11 15 P.M.	Dark	8° N. & 90° N.
65 Virginis	6	{ Below the horizon at the time of Emersion.	Dark	40° N. & 86° N.
21 Sagittarii	6	{ 21 10 22 P.M. 21 11 13 P.M.	Dark	70° N. & 69° N.
19 Capricorni	6	{ 24 9 6 P.M. 24 10 6 P.M.	Dark	36° N. & 72° N.

#### TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	Right Ascension	Declination North.
LAST QUARTER 2d. 5h. 58m. P.M.	1	5h. 10m
NEW MOON .. 9 2 27 P.M.	6	5 30
FIRST QUARTER 16 5 41 A.M.	11	5 57
FULL MOON 24 5 24 A.M.	16	6 33
PERIGEE .. 10 3 A.M.	21	7 14
APOGEE .. 24 10 A.M.	26	7 58

#### RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

	MERCURY		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.	
	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.
1	5h. 10m	19° 28'	8h. 51m	19° 28'	9h. 59m	13° 31'	11h. 14m	6° 18'	1h. 18m	5° 37'	1h. 52m	10° 55'	22h. 36m	9° 42'
6	5 30	20 44	9 16	17 44	10 11	12 26	11 16	6 1	1 19	5 41	1 52	10 58	22 36	9 43
11	5 57	22 1	9 39	15 48	10 22	11 18	11 19	5 43	1 20	5 45	1 53	11 0	22 35	9 45
16	6 33	22 53	10 2	13 43	10 34	10 8	11 22	5 24	1 20	5 47	1 53	11 2	22 35	9 47
21	7 14	22 59	10 25	11 29	10 45	8 57	11 25	5 4	1 21	5 49	1 53	11 3	22 35	9 49
26	7 58	22 0	10 47	9 9	10 57	7 44	11 28	4 43	1 21	5 50	1 54	11 4	22 35	9 51





JULY.—YACHTING OFF MOUNT'S BAY.



## NOTES ON NATURAL HISTORY.—JULY.

Now comes July, and with his fervid noon  
 Unsweats labour. The tired mower sleeps;  
 The weary maid rakes feebly; the warm swain  
 Pitches his load reluctant; the faint steer,  
 Lashing his sides, draws sulkily along  
 The slow encumber'd wain in midday heat.

In July the heat of the weather has generally become so oppressive that all nature appears languid; the very birds are nearly all silent, and only the robin and the wren, with some very few exceptions, continue to sing at all after the first fortnight in July. The birds that are heard at this season generally, indeed, sound strange and unnatural. The chaffinch, which at other times only repeats the shrill and monotonous two notes which have gained it its name, was heard by Mr. Jenyns, in July, to utter a singular kind of whistle, which it repeated several times in succession. Nearly all the young birds are hatched at this season; but Mr. Jenyns informs us he has found the nest of the tree-pipit (or, more probably, the meadow-pipit) on the grass as late as the middle of July. The tree-pipit, or titlark, is a kind of lark, the male bird of which has a very agreeable song; though, as Mr. Yarrell observes, "it is perhaps more attractive from the manner in which it is given than the quality of the song itself. He generally sings while perched on the top of a bush, or one of the upper branches of an elm tree standing in a hedge-row, from which, if watched for a short time, he will be seen to ascend on quivering wing about as high again as the tree, then, stretching out his wings and expanding his tail, he descends slowly by a half-circle, singing the whole time, to the same branch from which he started, or to the top of the nearest other tree; and so constant is this habit with him, that, if the observer does not approach too near so as to alarm him, the bird may be seen to perform this same evolution twenty times in half an hour." The titlarks walk on the ground, like the wagtails and the larks. The meadow-pipit is smaller than the other species; and, instead of singing on a tree, it places itself on a little hillock or a large stone, and moves its tail up and down like a wagtail. This bird always builds in the grass, and lays a little dried grass over its nest to conceal it. The rock-pipit inhabits low flat shores near the sea, "where it feeds on marine insects, sometimes seeking its food close to the edge of the retreating tide;" and sometimes busily engaged in turning over and examining sea-weed, apparently in search of small crabs or other similar crustacea.

July is the month for gathering the leaves of the woad (*Isatis tinctoria*). It is cultivated, as its leaves are applied in dyeing thread, in some parts of England; but that which is used for dyeing cloth is brought principally from the Canary Islands and Spain and Sicily. It was formerly grown in great abundance in the south of Somersetshire; and it is said that the name of Glastonbury is derived from the Celtic word *glas*, blue. The ancient Britons are reported to have painted their bodies with the blue obtained from this plant, and hence they received their name, as *Briti* is the Celtic word for to paint. The plant is a biennial, and the seeds that are sown in the July of one year produce leaves in the July of the following year in a fit state for using. When the leaves are gathered, they are steeped in water till all the fleshy matter is separated from the fibrous part; the pulp is then snuffed to ferment, and the water being partly strained and partly evaporated from it, the substance, when dry, is cut into pieces about an inch square, and packed in casks or sacks for sale. It is principally used for dyeing woollen substances not only blue, but black; a: all the black cloth that is made is dyed blue before it is dyed black, to prevent it from turning brown. The woad, though used in dyeing blue, has yellow flowers, which are rather ornamental. It is now comparatively very little cultivated, as it requires a very rich soil to bring the leaves to perfection; and, unless they are fleshy and succulent, they produce very little coloring matter. On this account its cultivation is so expensive, that indigo, which is produced from the leaves of the *Indigofera* (a leguminous plant growing in the East Indies), can be obtained more cheaply, and it is, therefore, generally preferred.

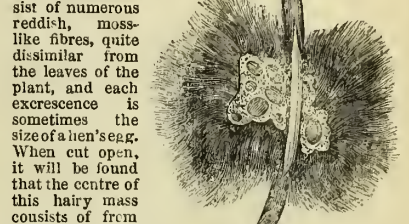
Cruciferous plants, such as the wild cabbage, the wild turnip, and the wild mustard, are generally in flower in this month; and, as their flowers are usually yellow, they give a peculiarly gay and cheerful appearance to the hedge-rows and road-sides at this season. All the cruciferous plants are edible, and though some of them are very pungent, they are far from disagreeable to the taste, and are generally considered very wholesome. They are all known by their flowers consisting of four petals, disposed in the form of a Greek cross. The umbelliferous plants, on the other hand, which are known by their flowers forming large heads, like the parsley and the meadow-sweet, are nearly always poisonous when in a wild state; though they are rendered edible, and even wholesome, by cultivation. The celery and the carrot are striking examples of this. The celery is poisonous in a wild state; and its stalks are tough and leathery. The wild carrot has a root so slender that it was at first thought it was scarcely possible to be the same plant as that cultivated in gardens. M. Vilmorin, however, of Paris, contrived, by cultivating the wild plant and raising several generations from its seeds, to obtain carrots fit for the table. In this way, no doubt, many of our popular vegetables have been introduced, of which the origin now is totally unknown. As a proof of the wonders which may be effected by cultivation, it may be mentioned that all the kinds of cabbage, greens, broccoli, and cauliflower

have been raised from the same stock, and that they are only sub-varieties of the same species.

At this season of the year, rose-trees have very often curious excrescences on the branches, which look like a tufted lichen, and to which the old naturalists gave the name of *bedeguar*. These excrescences consist of numerous



LARVA AND PERFECT IN-  
 SECT OF THE EGLAN-  
 TINE GALL.



INTERIOR OF THE GALL ON THE  
 EROLANTINE.

of numerous reddish, moss-like fibres, quite dissimilar from the leaves of the plant, and each excrescence is sometimes the size of a hen's egg. When cut open, it will be found that the centre of this hairy mass consists of from ten to a dozen cells all growing together, each containing the maggot of a kind of gnat (*Cynips*). This gnat, or gall-insect, pierces the bark of the rose-tree with its ovipositor, and lays its eggs just within the bark, or, rather, in the soft parts of the plant, and these having their juices interrupted, bulge out into a kind of tumour; while the bark, separating into its woody fibres, forms a kind of fringe, which covers the tumour. The perfect insect is a most fearful-looking gnat. Gnats are at this season very abundant. The month of July is generally remarkably moist, and as it is also warm, it is very favourable to the increase of these creatures, who have been always observed to bite most in the warm moist weather.

There is a species of gnat common in Hungary (*Simidia columbaczensis*), which, though so minute as to be scarcely perceptible without a powerful microscope, is yet so extremely destructive that it will kill a large horse or cow in a few hours. In some years these gnats fill the atmosphere so completely, that, as Kollar tells us, "it is impossible to breathe without swallowing a great number of them. Not unfrequently they appear in so dense a multitude as to be taken at a distance for a cloud, and in this form they are most to be feared. On the appearance of these clouds the herds instinctively leave their pastures, and fly to the villages to take refuge in their stables from these bloodthirsty insects. Horses, oxen, and swine generally suffer the most from them. When these flies attack any of the above-named animals, they select the tender soft parts, free from hair. Hence, they attach themselves mostly to the corners of the eyes, the mouth, the nostrils, and even creep into the ears and the inner nostrils, the throat and wind-pipe, &c., where they are sometimes found in animals killed by them, in thick layers. Men are no less exposed to the attacks of these scourges than domestic animals; but they can more readily drive them off, and by covering the face secure themselves from the most dangerous consequences. Solitary examples also are not wanting where little children have been killed by them, when the mother, to pursue her work, has left her babe lying in the grass, or suspended in its swing to the branch of a tree, and staid away too long. Every bite given by this insect to men or cattle causes a burning itching, and a very painful, hard, rapid swelling, which scarcely goes off in eight or ten days. Many of them, particularly when they are near together, cause a violent inflammatory fever, and in sensitive bodies cramps and convulsions. For a long time the appearance of this destructive gnat was a dark riddle to the inhabitants of the country. All sorts of conjectures were made about its origin. The inhabitants of the neighbourhood of Columbacz, in Servia, the native locality of these flies, assert that the caves in the limestone mountains, near the ancient Castle of Columbacz, are their real birth-places, as they have been seen to issue from the mouths of these caves in the form of a thick smoke. This opinion is universal in the Bannat, and is particularly maintained by the Wallachians, who add that the dragon killed by St. George is hurried in one of these caves, and that these hurtful insects, as well as many other poisonous animals, are hatched in its jaws." Some of these gnats were brought to England in the summer of 1847, and exhibited at a meeting of the Entomological Society.

One of the most destructive insects at this season of the year is the raspberry beetle (*Dermestes*, or *Bytirus tomentosus*). "This may of the raspberries," says Mr. Westwood, "may now be perceived more or less shrivelled, with the seed-vessels dried up. If one of these be opened, the central core of the fruit will be found more or less burrowed, as well as the fruit itself, the seeds of which are left bare and dry, especially at the top, the remainder not being full-sized, and generally prematurely ripe and discoloured. This is done by a whitish grub, of about a quarter of an inch long, and rather cylindrical in figure; with the under side of the body and sides, and articulations of the segments, dirty white; the head and a dorsal plate on each ring brownish buff, with the sides and a central longitudinal line on each plate brown, thus giving the appearance of three dorsal lines of brown. The head is horny, and furnished with horny jaws and short feelers, as well as with the various membranous parts usually present, composing the under portions of the mouth of the larvæ of *Coleoptera*. The grub is also furnished with six short, scaly, articulated feet. It has also two short scaly horns on the upper side of the extremity of the body, the under side being furnished with a fleshy retractile tubercle, which the insect uses as a seventh foot. When full grown it descends to the earth, where it hurries itself to a considerable depth, forming for itself a small oval cocoon of earth, with the inner surface quite smooth. Here it assumes the ordinary pupa state, to which all coleopterous insects are subject." The perfect insect is a small, buff, or slaty-brown, oval beetle, about one-sixth of an inch long, with knobbed antennæ, which is to be seen flying about the raspberry plants in summer, and which is sometimes also found on the hawthorn and the blackberry.

The bloody-nose beetle (*Chrysomella tenebricosa*) is so named from its having always, when alarmed, a clear drop or two of red fluid hanging from its mouth. This fluid it ejects, when taken, upon the hands of its capturers; and as, from the sharp pain it occasions, it frequently makes the holder start, the insect falls to the ground, and, of course, loses no time in making its escape. Other species of the same genus eject a white fluid, which is somewhat glutinous, and which enables them to adhere, when necessary, to the branches or leaves of trees. These beetles, indeed, and the ground beetles, to which they are very nearly allied, are remarkably expert climbers, and they will not only run up trees and along the branches of trailing plants, but they will occasionally walk with their backs downwards, adhering so firmly that it requires a tolerably strong pull to disengage them. Sometimes, the effect of a warm sunny day in February is astonishing upon the beetles which are hibernated, and they come out of their holes in such numbers, as to make one wonder where they can possibly have been hidden.





		SUN.					MOON.					DURATION OF MOONLIGHT.					HIGH WATER					Day of the Year.
		SOUTHS.					SOUTHS.					MOONLIGHT.					AT LONDON BRIDGE.					
		Rises.	After 12 o'Clock.	Height above horizon.	Sets.	Rises.	Afternoon.	Morning.	Height above horizon.	Sets.	Before Sunrise.	O'Clock. 1h. 2h. 3h.	Moon's Age.	After Sunset.	O'Clock. 9h. 10h. 11h.	Morning.	Afternoon.					
M.	D.	H. M.	M. S.	Deg.	H. M.	H. M.	H. M.	Deg.	H. M.	H. M.	O'Clock. 1h. 2h. 3h.	Moon's Age.	O'Clock. 9h. 10h. 11h.	H. M.	H. M.	H. M.	H. M.					
1	Th	Lammas Day	4 25	6 1	56 $\frac{1}{2}$	7 46	11 29	5 55	48	1 1				7 0	7 25	213						
2	F	Length of day 15h 18m	4 26	5 57	56 $\frac{1}{4}$	7 44	Morning.	6 45	51 $\frac{3}{4}$	2 14				7 55	8 20	214						
3	S	Length of night 8h 44m	4 28	5 53	56	7 42	0 2	7 39	55 $\frac{1}{4}$	3 27				9 0	9 35	215						
4	S	10TH S. aft. TRIN.	4 30	5 48	55 $\frac{3}{4}$	7 41	0 43	8 36	57 $\frac{1}{2}$	4 37				10 10	10 45	216						
5	M	[figuration	4 31	5 43	55 $\frac{1}{2}$	7 40	1 36	9 37	58 $\frac{1}{2}$	5 43				11 25	At Mid- night	217						
6	Tu	Pr. Alfred b. Trs.	4 33	5 37	55 $\frac{1}{2}$	7 38	2 35	10 39	58	6 38				No Tide.	0 35	218						
7	W	Name of Jesus	4 35	5 30	55	7 36	3 46	11 41	56	7 23				1 2	1 30	219						
8	Th	Day breaks 1h 36m	4 36	5 23	54 $\frac{3}{4}$	7 34	5 6	Afternoon	52 $\frac{3}{4}$	8 - 2				1 55	2 20	220						
9	F	[Q. Day	4 38	5 15	54 $\frac{1}{2}$	7 32	6 28	1 39	48 $\frac{1}{2}$	8 35				2 45	3 10	221						
10	S	St. Lawrence. Hf	4 40	5 7	54	7 31	7 49	2 33	43 $\frac{1}{2}$	9 2				3 35	3 55	222						
11	S	11TH S. aft. TRIN	4 41	4 58	53 $\frac{3}{4}$	7 29	9 7	3 25	38 $\frac{3}{4}$	9 28				4 20	4 45	223						
12	M	[Lam. Day	4 42	4 49	53 $\frac{1}{2}$	7 27	10 24	4 15	33 $\frac{3}{4}$	9 54				5 5	5 25	224						
13	Tu	Qu. Adel. b. Old	4 44	4 39	53 $\frac{1}{4}$	7 25	11 38	5 3	29 $\frac{1}{2}$	10 19				5 50	6 10	225						
14	W	Alpha Lyrae souths 8h 59m P.M.	4 45	4 28	53	7 23	Afternoon	5 51	25 $\frac{1}{2}$	10 46				6 30	6 55	226						
15	Th	As. of B. V. Mary	4 46	4 17	52 $\frac{1}{2}$	7 21	1 55	6 39	22 $\frac{1}{4}$	11 17				7 20	7 45	227						
16	F	Beta Lyrae souths 9h 5m P.M.	4 47	4 5	52 $\frac{1}{4}$	7 19	2 57	7 27	20	11 53				8 15	8 50	228						
17	S	Duch. of Kent b.	4 49	3 53	52	7 17	3 55	8 15	18 $\frac{3}{4}$	Morning.				9 30	10 5	229						
18	S	12TH S. aft. TRIN	4 51	3 40	51 $\frac{3}{4}$	7 15	4 48	9 4	18 $\frac{1}{2}$	0 33				10 40	11 20	230						
19	M	Gamma Aquile souths 9h P.M.	4 52	3 27	51 $\frac{1}{4}$	7 13	5 32	9 51	19	1 20				11 55	No Tide.	231						
20	Tu	Alpha Aquile souths 9h 47m P.M.	4 53	3 13	51	7 11	6 12	10 39	20 $\frac{1}{2}$	2 12				0 25	0 50	232						
21	W	Black-cock sh. b.	4 55	2 59	50 $\frac{3}{4}$	7 9	6 45	11 25	22 $\frac{1}{4}$	3 11				1 15	1 35	233						
22	Th	Beta Aquile souths 9h 44m P.M.	4 57	2 44	50 $\frac{1}{4}$	7 7	7 12	Morning.	—	4 12				1 55	2 10	234						
23	F	Alpha Cygni souths 10h 23m P.M.	4 59	2 29	50	7 5	7 37	0 10	26	5 15				2 30	2 45	235						
24	S	St. Bartholomew	5 1	2 13	49 $\frac{3}{4}$	7 3	8 0	0 54	29 $\frac{1}{2}$	6 20				3 5	3 20	236						
25	S	13TH S. aft. TRIN	5 2	1 57	49 $\frac{1}{4}$	7 1	8 23	1 38	33 $\frac{1}{2}$	7 26				3 35	3 50	237						
26	M	Prince Albert b.	5 3	1 40	49	6 59	8 44	2 22	38	8 33				4 5	4 20	238						
27	Tu	Beta Aquarii souths 11h 0m P.M.	5 5	1 24	48 $\frac{1}{2}$	6 57	9 6	3 6	42 $\frac{1}{4}$	9 40				4 35	4 55	239						
28	W	St. Augustin	5 7	1 6	48 $\frac{1}{4}$	6 55	9 33	3 52	46 $\frac{3}{4}$	10 50				5 10	5 30	240						
29	Th	St. John Bap. beh	5 8	0 49	48	6 53	10 2	4 40	50 $\frac{1}{2}$	11 59				5 45	6 5	241						
30	F	Alpha Aquarii souths '1h 23m P.M.	5 10	0 31	47 $\frac{1}{2}$	6 51	10 38	5 31	54	Afternoon				6 25	6 50	242						
31	S	Twilight ends 8h 56m	5 12	0 13	47 $\frac{1}{4}$	6 49	11 22	6 25	56 $\frac{3}{4}$	2 21				7 15	7 45	243						



## AUGUST.

THE SUN is situated north of the Equator, and is moving south. On the 23rd day, at 1h. 22m. P.M., he passes from the sign Leo to Virgo (the Virgin), having been in the former sign 31 days, 6 hours, and 49 minutes. He rises and sets on the 15th, at the E.N.E. and W.N.W. points of the horizon respectively. On the 1st day his distance from the Earth is 96,392,000 miles.

On August 7th there will be an eclipse of the Sun, but which will be invisible in Europe. It will be visible for the most part at places situated between 20° south latitude, and 40° north latitude, and between 130° and 300° east longitude. These portions of the Earth are principally occupied by the North Pacific Ocean, and the eclipse will be total at some parts of the ocean. It begins on the 7th at 7h. P.M. nearly, Greenwich time, at a place whose latitude is 11½° N., and whose longitude is 164° E.; and the eclipse ends on August 7th near midnight, Greenwich time, in latitude 10° S., and longitude 300° E.

The Moon, on the 1st, near midnight, enters Taurus. She crosses the Milky Way on the 4th; enters Gemini on the 5th; Cancer on the 6th; Leo on the 8th; Virgo on the 10th; Libra on the 13th; Ophiuchus on the 15th; Sagittarius on the 17th; Capricornus on the 20th; Aquarius on the 22nd; Pisces on the 24th; Cetus on the 25th; and, till the 29th, she is alternately in Pisces, Cetus, and Aries; and enters Taurus on the 29th.

She is above the horizon when the Sun is below, during the morning hours, for a few days at the beginning of the month, and from the 14th to the 31st; and during the evening hours, from the 11th to the 25th.

She is north of the Equator at the beginning, and reaches her extreme north position on the 5th; then she moves south; is on the Equator on the 11th; at her extreme south position on the 18th; and again on the Equator on the 26th, going north.

She is near Mercury on the 8th; Mars, Jupiter, and Venus on the 10th; Saturn on the 26th; and Uranus on the 27th.

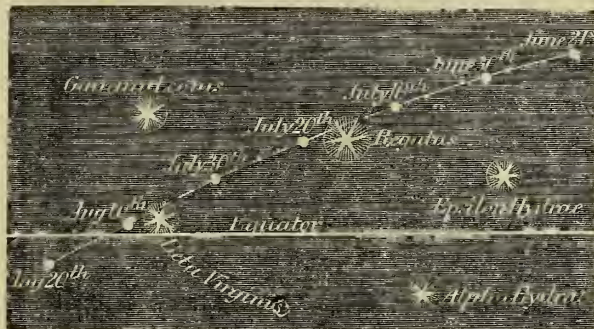
MERCURY is in the constellation Cancer till August 3rd; in that of Leo from the 4th to the 23rd; and in Virgo from the 24th.

He is an evening star; and sets on the 1st, at 8h. 1m.; on the 15th, at 7h. 57m.; and on the last day, at 7h. 24m.: these times are 15, 36, and 35 minutes, respectively, after the Sun sets. Mercury sets on the 19th at the W. by N., and on the 29th at the W. point of the horizon. He moves eastward among the stars throughout the month; is near the Moon on the 8th, and Jupiter on the 28th. For his path in the heavens, see the diagram in September, showing a continuation of his motion from that exhibited in the diagram in June.

VENUS is in the constellation Leo till the 3rd, and in that of Virgo from the 4th.

She is an evening star; and sets on the 1st, at 9h. 10m. P.M.; on the 15th, at 8h. 36m. P.M.; and on the last day, at 7h. 57m. P.M.; on the 13th at the W., and on the 27th at the W. by S. point of the horizon. She is moving eastward among the stars. She is near Jupiter on the 6th; Beta Virginis on the 8th; and Spica Virginis on the 31st. Her path in the heavens is shewn in the annexed diagram, and her telescopic appearance is shewn in December.

PATH OF VENUS FROM JUNE 21 TO AUGUST 20, 1850.



Scale, 24 degrees to one inch.

MAAS is in the constellation Leo till the 9th, on which day he passes into Virgo.

He is an evening star; and sets, on the 1st., at 9h. 6m. P.M.; on the 15th, at 8h. 26m. P.M.; and, on the last day, at 7b. 37m. P.M. He is moving eastward among the stars; is near the Moon on the 10th, Jupiter on the 14th, and Beta Virginis on the 15th. His altitude above the horizon when he souths on the 1st is 41½°, decreasing to 37° on the last day.

PATH OF MARS FROM JULY 1 TO AUGUST 31, 1850.



Scale, 12 degrees to one inch.

JUPITER is in the constellation Virgo throughout the month.

He sets, on the 1st, at 9h. 22m. P.M.; and, on the last day, at 7h. 35m. P.M.; near the W. by N. point of the horizon at the beginning of the month, and W. at the end. His altitude in southing is 42½° on the 1st, and is 40½° on the last day. He moves slowly eastward among the stars; is near Venus on the 6th, the Moon on the 10th, Mars on the 14th, and Beta Virginis on the 17th. His path in the heavens is shewn in the diagram in May.

RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERISION OR EMERISION.

1st Sat.	2nd Sat.	3rd Sat.	4th Sat.

SATURN is in the constellation Pisces throughout the month.

He is visible during the greater part of the night; and rises near the E. by N.; on the 1st, at 10h. 6m. P.M.; on the 15th, at 9h. 10m. P.M.; and, on the last day, at 8h. 8m. P.M. He souths at an altitude of 44° nearly; is almost stationary among the stars throughout the month; and is near the Moon on the 26th. See the diagram in next month shewing his motion in the heavens.

URANUS is in the constellation Aries throughout the month.

He rises, on the 1st, at 10h. 11m. P.M.; and on the 31st at 8h. 13m. P.M., midway between the E. by N. and E.N.E. points of the horizon. He souths, on the 15th, at 4h. 2m. A.M., at an altitude of 49½°. He is almost stationary among the stars, and is near the Moon on the 27th.

NEPTUNE rises, on the 1st, at 8h. 41m. P.M.; on the 15th, at 7h. 48m. P.M.; and, on the 31st, at 6h. 45m. P.M., midway between the E. by S. and the E.S.E. points of the horizon.

ON THE APPARENT MOTIONS OF THE SUN, MOON, AND PLANETS.

(Continued from page 29.)

declination and his greatest meridian altitude. From this time, the north declination gradually decreases till about the 24th of September, when he is again on the Equator: he continues to move in the same direction till about the 22nd of December, when his greatest south declination is attained; after which his south declination gradually decreases till about the 21st of March. At the times of the vernal equinox on the 21st of March, and the autumnal equinox about the 24th of

(Continued on page 37.)

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					
	Mercury.		Venus.		Mars.	
	Afternoon.	Afternoon.	Afternoon.	Afternoon.	Afternoon.	Afternoon.
1	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	0 12	2 34	2 31	2 53	4 44	1 57
6	0 33	2 35	2 23	2 36	4 24	1 37
11	0 50	2 36	2 15	2 20	4 4	1 17
16	1 4	2 37	2 7	2 4	3 44	0 57
21	1 14	2 38	1 59	1 48	3 24	0 37
26	1 22	2 39	1 51	1 32	3 4	0 17
31	1 27	2 40	1 43	1 16	2 43	Aftern.

## JUPITER'S SATELLITES.

Are not visible, Jupiter being too near to the Sun.

## OCULTATIONS OF STARS BY THE MOON.

Names of the Stars	Magn. value.	Times of disappearance & re-appearance of the Star.	At which limb of the Moon.	Between what Latitudes visible.
Gamma Tauri	3	{ 3 0 39 A.M. 3 1 25 A.M. 3 8 34 A.M.	Bright	16° N. & 90° N.
Aldebaran	1	{ 3 9 44 A.M. 3 4 30 P.M.	Dark	8° N. & 81° N.
Gamma Libræ	4	{ 14 9 41 P.M. 18 6 44 P.M.	Dark	18° N. & 76° N.
Xi 1 Sagittarii	6	{ 18 6 44 P.M. 18 8 4 P.M.	Bright	15° N. & 69° N.
42 Aquarii	6	{ 22 8 36 P.M. 22 9 19 P.M.	Dark	6° N. & 72° N.

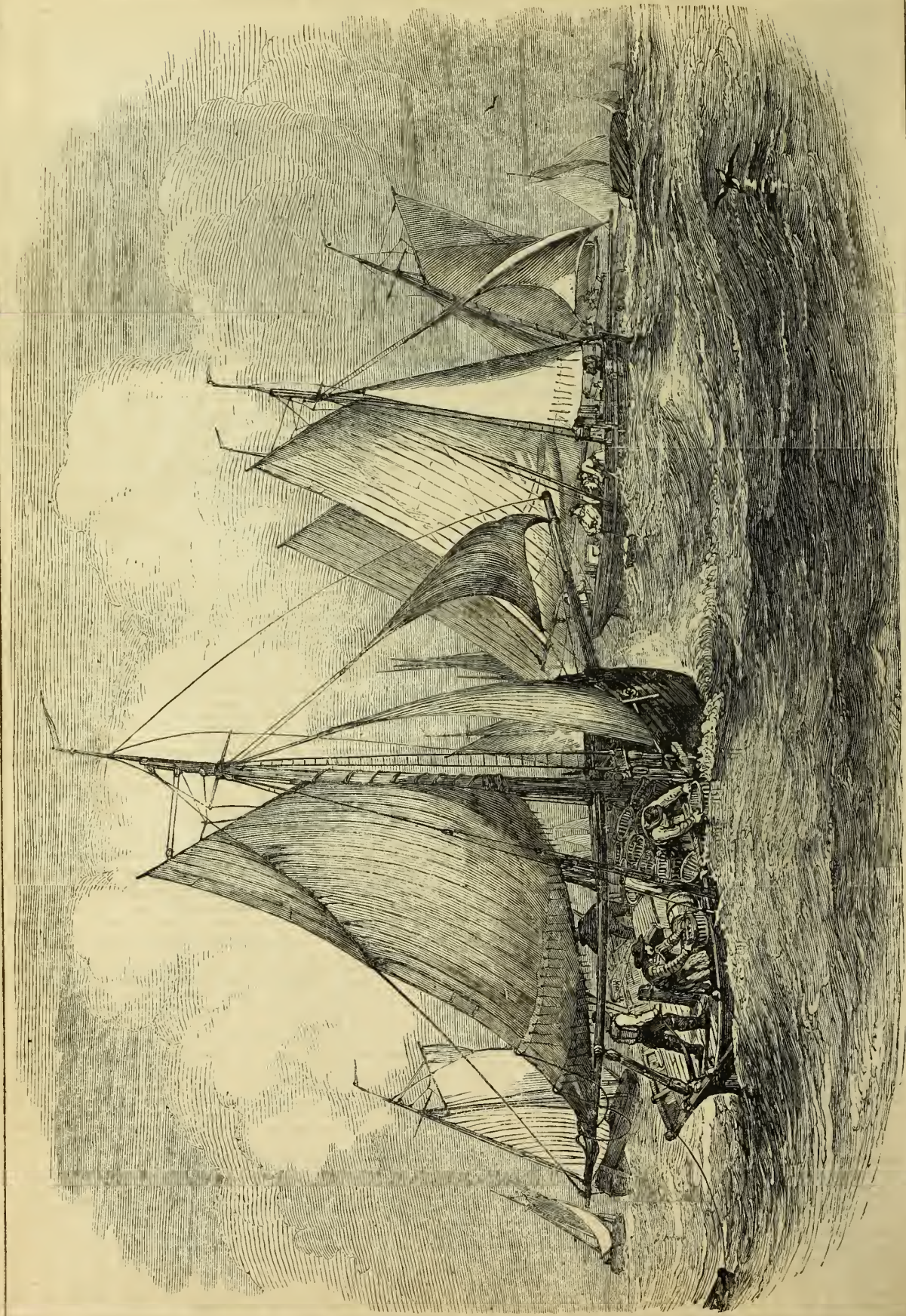
## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.	
	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.
	h. m.	° ' "	h. m.	° ' "	h. m.	° ' "	h. m.	° ' "	h. m.	° ' "	h. m.	° ' "	h. m.	° ' "
1	8h. 51m.	19° 27'	11h. 13m.	6° 13'	11h. 10m.	6° 14'	11h. 32m.	4° 17'	1h. 21m.	5° 49'	1h. 54m.	11° 55'	22h. 34m.	9° 55'
6	9 32	16 29	11 34	3 42	11 22	4 58	11 35	3 54	1 21	5 48	1 54	11 5	22 34	9 57
11	10 9	13 4	11 55	1 9	11 33	3 41	11 39	3 31	1 21	5 45	1 54	11 5	22 33	9 59
16	10 42	9 26	12 15	South.	11 45	2 23	11 41	3 7	1 21	5 42	1 54	11 4	22 33	10 3
21	11 12	5 45	12 36	3 59	11 57	1 4	11 46	2 43	1 20	5 37	1 53	11 3	22 32	10 6
26	11 39	2 7	12 56	6 31	12 8	South.	11 50	2 18	1 20	5 32	1 53	11 1	22 31	10 9

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

LAST QUART.	1D.	5h.	17m.	A.M.
NEW MOON ..	7	9	34	P.M.
FIRST QUART.	14	5	46	P.M.
FULL MOON ..	22	9	12	P.M.
LAST QUART.	30	2	18	P.M.
PERIGEE ..	7	1	P.M.	
APOGEE ..	20	3	P.M.	





AUGUST.—OYSTER DREDGING IN WHISTABLE BAY.



## NOTES ON NATURAL HISTORY.—AUGUST.

In August very few birds are heard to sing. Even the robin and the wren are generally quiet from the middle of July till the middle of August, though the robin generally begins again to sing towards the end of the latter month. Occasionally a number of young birds, such as linnets, greenfinches, buntings, and other small birds, are seen flying together in large flocks like a swarm of bees, and seeming as though they were driven off by the old birds, though they are much too numerous to be the inhabitants of one nest; and when they fly, it is in a determined manner, "wending their way steadily in a direct line, as if under the influence of some common impulse." These fittings, also, do not appear to have anything to do with ordinary migrations, as they occur in species which do not migrate; and, in fact, it does not appear that there is any reason for their removal, unless it be that those particular kinds of birds have become, after the hatching of the young ones, too numerous for their original neighbourhood, from a deficiency of food, or some other cause; and hence they are driven forth to seek a new settlement.

Mr. Knapp says he has observed "a flock of finches and yellow-hammers basking in a hedge, and a hawk, after due consideration, apparently single out an individual. Upon its moving for its prey, some wary bird has given the alarm, and most of the little troop scuttle immediately into the hedge; but the hawk holds on its course, and darts upon a selected object. If baffled, it seldom succeeds upon another; and, so fixed are its eyes upon this one individual, that, as if non-servant of its own danger, it snatches up its morsel at our very sides. A pigeon on the roof of a dove-cot seems selected from its fellows—the hawk rarely snatching at more than one terror-stricken bird. The larger species of hawks appear to employ no powers excepting those of wing, but pursue and capture by celerity and strength."

It has often been observed that we are surrounded by wonders which we do not notice, because they are of daily occurrence, but which excite the greatest surprise when they are pointed out to us. The truth of this observation is forcibly exemplified as regards fish. We see them every day exposed for sale on stalls, and we eat them frequently at our tables, without once considering by what a curious and delicate organisation these creatures are enabled to see and breathe in an element that carries death to us and to quadrupeds. The sight of fishes appears to be remarkably strong, as it is by sight chiefly that they discover their prey. Hence, a fish is easily deceived by an artificial fly, or the imitation of a frog or other small aquatic or amphibious animal; which, if it were guided by the smell, or any other sense than the sight, could not happen. The mode in which fish breathe is, however, the most curious. They have no lungs; but, instead of them, they have gills, carefully covered with a lid and a flap, both of which the fish can open or keep closed at pleasure. The gills are composed of arches, bordered by a kind of fringe, which, when examined through a microscope, appears covered with a velvet-like membrane, "over which myriads of wonderfully minute blood-vessels are spread, like a delicate net-work. There are commonly four of these fringed arches; they are moveable, and allow the currents of water, driven down by the action of the mouth, to flow freely through them, so as to have every fibril." It is absolutely necessary that this should be the case, since the gills lose their power of acting as soon as they become dry; and hence a fish cannot live long after it is taken out of the water. As there is danger, however, of the food taken by the fish being carried through the gills by the stream of water constantly flowing through them, the minor curve of the arch formed by the gills is studded with spines, which prevent anything but air or water passing through them.

In the vegetable world, some plants are in flower at this season that are not met with at any other, and one of the most curious of these is the flowering fern (*Osmunda regalis*), a plant, the very name of which seems a contradiction, as it is well known that ferns have no flowers, in the usual acceptance of the word, and that they bear their seeds on the back of their leaves. The flowering fern resembles the other plants belonging to the family in not having any proper flowers, but it has its seed-vessels on only some of its fronds, or, rather, on what should have been some of its fronds; as the seed-vessels grow clustered together, without any of the cellular tissue belonging to the leaves being produced. Thus, the seed-vessels of the flowering fern, instead of being found, as in other ferns, on the back of the leaves, look as though the leaves had withered away from them. In the early part of the summer, these seed-vessels being of a pale green, are scarcely perceptible; but about autumn they take a rich brown colour and become very ornamental. These ferns are tolerably abundant, particularly in the north of England and in Scotland, where, in marshy places, they grow to a considerable size, sometimes having been known to be upwards of eleven feet high. The botanic name of the plant is said to allude to some Saxon King named Osmund, who adopted the flowering fern as his badge, in the same way as the broom, the common heath, and many other British plants, have been adopted as banners by several Highland clans. The underground or root-like stem of this plant is tonic, and is used in rustic medicine. The moon-wort, or grape fern (*Botrychium Lunaria*), is very nearly allied to the *Osmunda*, as it produces naked seed-vessels; but it is much less ornamental. It takes its name of moon-wort from its leaflets being somewhat crescent-shaped. The adder's tongue (*Ophioglossum*) is another fern which does not produce its seed-vessels on the back of the leaves, but in a close clustered spike, bearing considerable resemblance to a tongue. The

adder's tongue is found in moist meadows and pastures in warm situations.

The sundew, or red rot, is the name of a singular genus of perennial British plants, which are found on heaths and commons where the soil is boggy. The leaves, which all spring from the roots, are covered with glandular hairs, from the extremities of which exudes a transparent but glutinous liquid, resembling drops of dew. The flowers are nearly white, and rather pretty. There are three species: the commonest kind has round leaves, but the long-leaved species (*Drosera longifolia*) is the most ornamental. Ants and small flies are sometimes found adhering to the leaves, or entangled in the hairs, which, it is said, fold over them, and prevent the possibility of their escape; but it appears more probable that the insects are held fast by the glutinous liquid exuded from the hairs. "All the species of *Drosera* are acrid, and their juice is employed to destroy warts and corns." They are said to occasion the rot in sheep, but that probably arises from the unwholesome nature of the boggy land on which the plants grow.

The ants generally seen are little black creatures with long legs, large heads, and very slender bodies. But these are only the working part of the community; and many people are probably not aware that, in the month of August, and sometimes later, "the habitations of the various species of ants may be seen to swarm with winged insects, which are the males and females, preparing to quit for ever the scene of their nativity and education. Every thing is in motion; and the silver wings, contrasted with the jet bodies which compose the animated mass, add a degree of splendour to the interesting scene.

The hustle increases, till at length the males rise, as it were by a general impulse, into the air, and the females accompany them. The whole swarm alternately rises and falls with a slow movement to the height of about ten feet, the males flying obliquely, with a rapid zig-zag motion, and the females, though they follow the general movement of the column, appearing suspended in the air, like balloons.

seemingly with no individual motion, and having their heads turned towards the wind." "Sometimes the swarms of a whole district," continue Messrs. Kirby and Spence, "unite their infinite myriads, and, rising with incredible velocity, in distinct columns, they soar above the clouds. Each column looks like a kind of slender net-work, and has a tremulous undulating motion, which has been observed to be produced by the regular alternate rising and falling just alluded to. The noise emitted by myriads of these creatures does not exceed the hum of a single wasp. The slightest zephyr disperses them; and if, in their progress, they chance to be over your head, if you walk slowly on, they will accompany you, and regulate their motions by yours." All the male, and a great number of the female, ants become the prey of birds or fish, or are destroyed in various ways; but a few females remain, some of which become the founders of new colonies, while others return to their original nest, when it is said that they are seized forcibly by some of the working ants, who tear off their wings, and keep them prisoners till they are ready to lay their eggs. During the time that the female ants are in this state of durance, the working ants, though hanging pertinaciously to each leg, to prevent their going out, at the same time attend upon them with the greatest care, feeding them regularly, and conducting them where the temperature is suitable for them, but never quitting them for a single moment. As soon as the female begins to lay her eggs, the working ants which are in attendance on her carry them off, and deposit them in proper places for them to be hatched. Each female lays four or five thousand eggs in the course of a year, so that when a single female founds a colony, she is very soon enabled to people it. When a female has founded a colony, the working ants begin to pay a homage to her very similar to that which bees render to their queen; and, as Messrs. Kirby and Spence observe, "all press round her, offer her food, conduct her by her mandibles through the difficult or steep passages of the fornicary; nay, they sometimes even carry her about their city: she is then suspended upon their jaws, the ends of which are crossed; and, being coiled up like the tongue of a butterfly, she is packed so close as to incommode the carrier but little. When he sets her down, others surround and caress her, one after another tapping her on the head with their antennae." "In whatever apartment," says Gould, "a queen condescends to be present, she commands obedience and respect. An universal gladness spreads itself through the whole cell, which is expressed by particular acts of joy and exultation. They have a particular way of skipping, leaping, and standing upon their hind legs, and prancing with the others." The ants appear to make use of these frolics to show their joy at the presence of their queen. It is said, that when a queen begins to form a colony, the first thing she does is to strip herself of her wings; so that when the female ants belonging to a colony already formed are stripped of their wings by the workers, it is not an act of cruelty on their part, but rather a delicate attention, as they spare the queen the trouble of taking off her wings herself.



LONG-LEAVED SUN-DEW.



COMMON ANT.



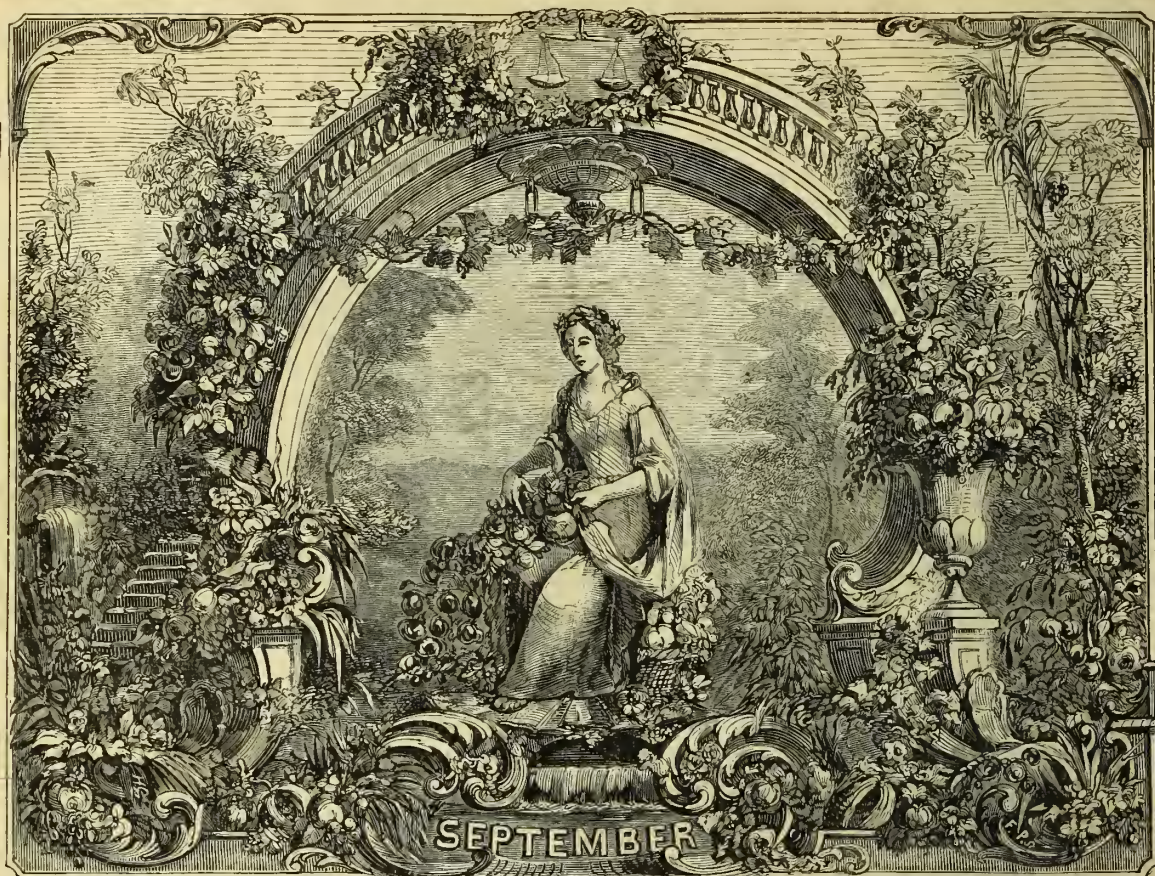
WINGED ANT.



FLOWERING FERN.

together, without any of the cellular tissue belonging to the leaves being produced. Thus, the seed-vessels of the flowering fern, instead of being found, as in other ferns, on the back of the leaves, look as though the leaves had withered away from them. In the early part of the summer, these seed-vessels being of a pale green, are scarcely perceptible; but about autumn they take a rich brown colour and become very ornamental. These ferns are tolerably abundant, particularly in the north of England and in Scotland, where, in marshy places, they grow to a considerable size, sometimes having been known to be upwards of eleven feet high. The botanic name of the plant is said to allude to some Saxon King named Osmund, who adopted the flowering fern as his badge, in the same way as the broom, the common heath, and many other British plants, have been adopted as banners by several Highland clans. The underground or root-like stem of this plant is tonic, and is used in rustic medicine. The moon-wort, or grape fern (*Botrychium Lunaria*), is very nearly allied to the *Osmunda*, as it produces naked seed-vessels; but it is much less ornamental. It takes its name of moon-wort from its leaflets being somewhat crescent-shaped. The adder's tongue (*Ophioglossum*) is another fern which does not produce its seed-vessels on the back of the leaves, but in a close clustered spike, bearing considerable resemblance to a tongue. The





		SUN. SOUTH.					MOON. S					DURATION OF MOONLIGHT.				HIGH WATER AT LONDON BRIDGE.		Day of the Year.
M D	W D	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	Rises.	After 12 o'clock.	Height above Horizon	Sets.	Rises. Morning	Morning.	Height above Horizon	Sets. Afternoon	Before Sunrise O'Clock. 2h. 3h. 4h.	After Sunset O'Clock. 8h. 9h. 10h	Mo- n's Age.	Mo- n's Age.	Mo- n's Age.	Mo- n's Age.		
1	S	14TH S. aft. TRIN.	5 13	0 6	46 $\frac{1}{4}$	6 46	Morning.	7 22	58 $\frac{1}{4}$	3 28			25			8 20	9 5	244
2	M	London bt., 1666.	5 15	Before 12 o'Clock.	46 $\frac{1}{4}$	6 44	0 15	8 22	58 $\frac{1}{4}$	4 26			26			9 45	10 25	245
3	Tu	Partridge and Bustard Shooting begins on the 1st.	5 16	0 44	46 $\frac{1}{4}$	6 42	1 22	9 23	57 $\frac{1}{4}$	5 16			27			11 10	11 45	246
4	W	Alpha Cygni souths 9h 41m P.M.	5 18	1 3	45 $\frac{3}{4}$	6 40	2 37	10 23	54 $\frac{1}{4}$	5 57			28			No Tide.	0 20	247
5	Th	Old St. Bartholo.	5 20	1 23	45 $\frac{1}{4}$	6 37	3 56	11 21	50 $\frac{1}{4}$	6 31			29			0 50	1 20	248
6	F	Alpha Aquarii souths 10h 55m P.M.	5 21	1 43	45	6 35	5 18	Afternoon	46	7 1			30			1 45	2 5	249
7	S	Eunuchus	5 23	2 2	44 $\frac{1}{2}$	6 32	6 40	1 11	41	7 28			1			2 30	2 55	250
8	S	15TH S. aft. TRIN.	5 25	2 23	44 $\frac{1}{4}$	6 29	8 0	2 33	36	7 55			2			3 15	3 40	251
9	M	[Nativity of B. V. Mary	5 26	2 43	43 $\frac{3}{4}$	6 27	9 15	2 53	31	8 19			3			3 55	4 20	252
10	Tu	Length of day 12h 58m	5 27	3 3	43 $\frac{1}{2}$	6 25	10 30	3 43	26 $\frac{1}{2}$	8 45			4			4 40	5 0	253
11	W	Length of night 11h 7m	5 29	3 24	43	6 22	11 41	4 32	23	9 16			5			5 15	5 35	254
12	Th	Day breaks 3h 32m	5 31	3 45	42 $\frac{3}{4}$	6 20	Afternoon	5 21	20 $\frac{1}{2}$	9 50			6			5 55	6 20	255
13	F	Twilight ends 8h 20m	5 32	4 6	42 $\frac{1}{4}$	6 18	1 48	6 10	19	10 29			7			6 40	7 5	256
14	S	Holy Cross	5 33	4 27	42	6 16	2 43	6 59	18 $\frac{1}{2}$	11 14			8			7 30	8 0	257
15	S	16TH S. aft. TRIN.	5 35	4 48	41 $\frac{1}{2}$	6 14	3 31	7 47	18 $\frac{1}{2}$	Morning.			9			8 40	9 20	258
16	M	Buck-Hunt. ends	5 36	5 9	41 $\frac{1}{2}$	6 12	4 12	8 35	19 $\frac{3}{4}$	0 6			10			10 0	10 45	259
17	Tu	Lambert	5 38	5 30	40 $\frac{3}{4}$	6 10	4 47	9 21	22	1 2			11			11 20	At Midnight	260
18	W	Ember Week. K	5 40	5 51	40 $\frac{1}{2}$	6 7	5 15	10 7	24 $\frac{3}{4}$	2 2			12			No Tide.	0 25	261
19	Th	[George I. & II. land	5 42	6 13	40	6 5	5 41	10 51	27 $\frac{3}{4}$	3 5			13			0 50	1 10	262
20	F	Fomalhaut souths 10h 51m P.M.	5 43	6 34	39 $\frac{1}{2}$	6 2	6 5	11 36	32 $\frac{1}{4}$	4 10			14			1 30	1 45	263
21	S	St. Matthew	5 45	6 55	39 $\frac{1}{2}$	6 0	6 27	Morning.	—	5 16			15			2 5	2 20	264
22	S	17TH S. aft. TRIN.	5 46	7 16	38 $\frac{1}{2}$	5 58	6 48	0 20	36 $\frac{1}{4}$	6 24			16			2 35	2 50	265
23	M	Autumn begins	5 48	7 37	38 $\frac{1}{2}$	5 56	7 11	1 44	41	7 31			17			3 5	3 20	266
24	Tu	Alpha Pegasi souths 10h 43m P.M.	5 49	7 57	38	5 54	7 36	1 50	45 $\frac{1}{2}$	8 42			18			3 40	3 55	267
25	W	Alpha Andromedæ souths 11h 42m P.M.	5 51	8 18	37 $\frac{1}{2}$	5 52	8 4	2 38	49 $\frac{1}{2}$	9 52			19			4 10	4 25	268
26	Th	St. Cyprian	5 53	8 38	37 $\frac{1}{4}$	5 50	8 37	3 28	53 $\frac{1}{4}$	11 4			20			4 45	5 5	269
27	F	Length of day 11h 52m	5 55	8 59	37	5 47	9 18	4 20	56 $\frac{1}{4}$	Afternoon			21			5 20	5 40	270
28	S	[Michael. Day.	5 56	9 19	36 $\frac{1}{2}$	5 45	10 8	5 16	58 $\frac{1}{4}$	1 20			22			6 0	6 25	271
29	S	18TH S. aft. TRIN.	5 58	9 38	36 $\frac{1}{4}$	5 43	11 6	6 13	58 $\frac{3}{4}$	2 20			23			6 55	7 25	272
30	M	St. Jerome	5 59	9 58	35 $\frac{3}{4}$	5 41	Morning.	7 12	58	3 10			24			8 0	8 45	273



## SEPTEMBER.

THE SUN is situated north of the Equator till the 22nd, and he crosses the Equator, going south, on the 23rd. He crosses from the sign Virgo to Libra on the 23rd day, at 10h. A.M., having been in the former sign 30 days, 20 hours, and 34 minutes. He rises and sets on the 5th at the E. by N. and W. by N., and on the 23rd at the E. and W. points of the horizon respectively. On the 1st day his distance from the Earth is 95,816,000 miles.

The Moon is in Gemini on the 1st; and enters Cancer on the 3rd; Leo on the 4th; Virgo on the 6th; Libra on the 10th; Ophiuchus on the 12th; Sagittarius on the 14th; Capricornus on the 16th; Aquarius on the 18th; Pisces on the 20th; Cetus on the 21st; near Pisces and Cetus on the 24th; near Aries and Cetus on the 25th. She is crossing the Milky Way on the 28th. She enters Gemini on the 28th, and Cancer on the 30th.

She is above the horizon when the Sun is below, during the morning hours of the first three days and last eleven days, and during the evening hours, from the 9th to the 24th.

She is at her extreme north position on the 1st; is on the Equator on the 8th; and her extreme south position on the 15th: she then begins to move northward; is on the Equator on the 22nd; and reaches her extreme north position a second time on the 29th.

She is near Mercury, Mars, and Jupiter on the 7th; Venus on the 9th; Saturn and Uranus on the 23rd.

MERCURY is in the constellation Virgo throughout the month.

He is an evening star; and sets on the 1st at 7h. 21m.; on the 15th, at 6h. 41m.; and on the last day, at 5h. 41m. The Sun sets on these days 35 minutes, 27 minutes, and 3 minutes before the planet. On the 9th he sets at the W. by S.; and towards the end of the month, near W.S.W. He moves eastward among the stars till the 24th; is stationary among them on the 25th; and moves westward from the 26th. He is near the Moon on the 7th; Mars on the 8th, and again on the 26th; is near Spica Virginis on the 20th; and is at his greatest eastern elongation on the 12th. His path in the heavens is shown in the diagram below.

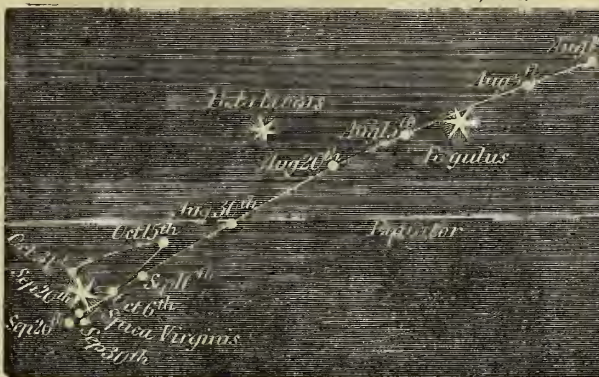
VENUS is in the constellation Virgo till the 11th; and in that of Libra from the 12th.

She is an evening star; she sets, on the 1st, at 7h. 55m. P.M.; on the 15th, at 7h. 22m. P.M.; and on the last day, at 6h. 50m. P.M.; on the 11th at the W.S.W., and on the 28th at the S.W. by W. points of the horizon. She is moving eastward among the stars, and is near the Moon on the 9th. For her path in the heavens see the diagram in November; and for her telescopic appearance see the engraving in December.

MARS is in the constellation Virgo throughout the month.

He is an early evening star, and sets, on the 1st, at 7h. 34m. P.M.; on the 15th, at

PATH OF MERCURY FROM AUGUST 1 TO OCTOBER 31, 1850.



Scale, 24 degrees to one inch.

6h. 54m. P.M.; and on the last day, at 6h. 12m. P.M.; near the W. at the beginning of the month, and at the W. by S. point of the horizon on the 21st: he is

moving eastward among the stars; he is near the Moon and Mercury on the 7th, and again near Mercury on the 26th. His altitude above the horizon when he souths on the 1st is  $36^{\circ}$ , decreasing to  $29^{\circ}$  nearly on the last day. For his path in the heavens during this month, see the diagram in November.

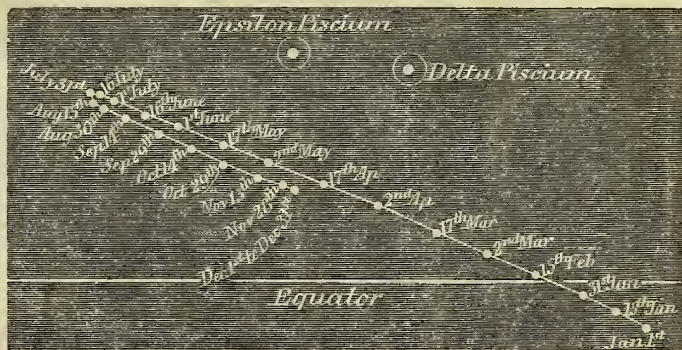
JUPITER is in the constellation Virgo throughout the month.

He sets, on the 1st, at 7h. 32m. P.M.; and on the last day, at 5h. 45m. P.M.; near the W. point of the horizon. His altitude at the time of southing on the 1st is  $40^{\circ}$ ; and on the last day, is  $37^{\circ}$ . His motion is slowly eastward among the stars; and he is near the Moon on the 7th. For his path in the heavens see the diagram in May.

SATURN is in the constellation Pisces throughout the month.

He is visible throughout the night; and rises on every day near the E. by N.

PATH OF SATURN DURING THE YEAR 1850.



Scale, 6 degrees to one inch.

point of the horizon, at 8h. 4m. P.M., on the 1st; at 7h. 8m. P.M., on the 15th; and at 6h. 7m. P.M., on the 30th. He souths at an altitude of  $43^{\circ}$  nearly. He moves slowly westward among the stars, and is near the Moon on the 23rd. His path among the stars throughout the year is shown in the above diagram.

URANUS is in the constellation Aries throughout the month.

He rises, on the 1st, at 8h. 9m. P.M.; and on the 31st, at 6h. 13m. P.M. He souths on the 15th, at 2h. 15m. A.M., at an altitude of  $49^{\circ}$  nearly. He moves westward among the stars, and is near the Moon on the 23rd.

NEPTUNE rises, on the 1st, at 6h. 41m. P.M.; on the 15th, at 5h. 45m. P.M.; and on the last day, at 4h. 46m. P.M.

## ON THE APPARENT MOTIONS OF THE SUN, MOON, AND PLANETS.

(Continued from page 33.)

September, the lengths of both days and nights are equal all over the earth.

The circle which the sun describes is called the Ecliptic—so named from the circumstance of the Moon, at the time of her eclipse, occupying that part of the heavens which is passed over by the Sun; in fact, as was frequently stated last year, no eclipse of either the Sun or Moon can take place unless the Sun, the Moon, and the Earth are in, or nearly in, the same straight line.

The Ecliptic is, and has been from time immemorial, divided into twelve equal parts, called Signs—each of which, therefore, contains one-twelfth part of the whole circle, or thirty degrees. The names and symbols of these signs are inserted on page 3. The space extending eight degrees on either side of the Ecliptic is called the Zodiac; and within this space the greater part of the celestial phenomena connected with the planetary system takes place.

The motion of the Sun in his orbit is not uniform. This is evident from the fact of his remaining several days longer in the northern than in the southern signs. On page 3 will be seen the length of the seasons, from which it appears that at present Spring is shorter than Summer, and the Autumn longer than Winter; and that the interval of time between the vernal and autumnal

(Continued on page 41.)

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.					
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.	Neptune.
	Afternoon	Afternoon	Afternoon	Afternoon	Morning	Afternoon
1	H. M. 1 28	H. M. 2 40	H. M. 1 41	H. M. 1 13	H. M. 2 39	H. M. 1 53
6	1 31	2 41	1 33	0 57	2 19	11 33
11	1 31	2 42	1 26	0 42	1 58	11 12
16	1 27	2 43	1 18	0 26	1 37	10 52
21	1 19	2 44	1 11	0 10	1 16	10 32
26	1 3	2 45	1 3	Morn.	0 55	10 12
30	0 43	2 46	0 58	11 42	0 39	9 56

## JUPITER'S SATELLITES.

## Eclipses of

Are not visible, Jupiter being too near to the Sun.

## OCULTATIONS OF STARS BY THE MOON.

Names of the Stars.	Time of occultation.	Times of disappearance & re-appearance of the Star.	At which limb of the Moon.	Between what latitudes visible.
29 Ophiuchi	6	D. H. M. 12 9 7 P.M.	Dark	4° N. & 70° N.
Bright		12 9 45 P.M.	Dark	2° N. & 66° N.
Omicron Capricorni	6	16 11 31 P.M.	Bright	30° N. & 75° N.
Iota Aquarii	4	17 0 34 A.M.	Dark	9° N. & 79° N.
70 Aquarii	6	18 10 54 P.M.	Bright	
		18 11 40 P.M.	Dark	
		19 7 20 P.M.	Bright	
Aldebaran	1	19 8 16 P.M.	Dark	
		At the time of immersion below the horizon.		
		26 9 8 P.M.	Dark	

TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth in each Lunation.

Days of the Month.	NEW MOON	FIRST QUART.	FULL MOON	LAST QUART.	PERIGEE	APOGEE
1	6d. 5h. 28m. A.M.	13 8 21 A.M.	21 0 40 A.M.	28 9 53 P.M.	4 10 P.M.	17 1 A.M.

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month.	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.	
	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.
1	12h. 9m.	2° 2'	13h. 21m.	9° 30'	12h. 22m.	1° 51'	11h. 54m.	1° 48'	1h. 19m.	5° 25'	1h. 53m.	10° 58'	22h. 31m.	10° 12'
6	12 31	5 14	13 41	11 54	12 34	3 11	11 58	1 23	1 18	5 18	1 52	10 56	22 31	10 17
11	12 51	8 5	14 2	14 12	12 46	4 30	12 2	0 58	1 17	5 11	1 52	10 53	22 30	10 20
16	13 7	10 27	14 23	16 23	12 58	5 50	12 6	0 32	1 16	5 3	1 51	10 50	22 30	10 23
21	13 19	12 7	14 44	18 26	13 11	7 9	12 10	0 6	1 14	4 55	1 51	10 47	22 29	10 25
26	13 23	12 45	15 4	20 49	13 23	8 27	12 14	South.	1 13	4 46	1 50	10 43	22 29	10 27





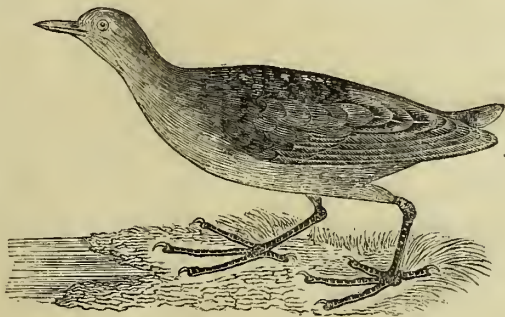
MULLINSON SC

SEPTEMBER.—LOBSTER FISHING OFF FOLKSTONE.



## NOTES ON NATURAL HISTORY.—SEPTEMBER.

SEPTEMBER is the favourite month of sportsmen; and in the first week or two, in addition to the ordinary number of partridges, many corn-crakes are killed, as they are generally very abundant in the fields, particularly where seed clover has been sown with barley. Corn-crakes, Mr. Yarrell observes, are excellent game for young sportsmen, as they fly very slowly with their legs hanging down, and seldom go farther than to the nearest hedge; while they are so highly prized as food, that it was formerly said two landrails are a present for a Queen. The corn-crake or landrail will put on the appearance of death when exposed to danger from which it cannot escape; and Mr. Jesse relates the following incident in proof of this assertion:—"A gentleman had a corn-crake brought to him by his dog, to all appearance quite dead. As it lay on the ground, he turned it over with his foot, and felt convinced that it was dead. Standing by, however, in silence, he suddenly saw it open an eye. He then took it up; its head fell; its legs hung loose, and it appeared again quite dead. He then put it in his pocket, and before long he felt it all alive, and struggling to escape. He then took it out; it was as lifeless as before. Having laid it again upon the ground, and retired to some distance, the bird in about five minutes warily raised its head, looked round, and decamped at full speed." There are two other kinds of corn-crake besides the common species: the one is called the spotted corn-crake, and is very prettily marked with white spots on the wings; and the other, which is called the little crake, is of an olive-brown colour, and much smaller than the other kinds.



LITTLE CRAKE.

There are but few plants in flower at this season; and though the woods are "ay, from the autumnal tints taken by the leaves of some of the trees, many leaves have fallen, and the mornings and evenings have become cold and damp. Among the few flowers left may be seen the colchicum, which resembles the crocus in its form, but which is of a much paler lilac, and which has long, slender, succulent, white stems, without any appearance of leaves (which, indeed, do not show themselves above ground till the following spring, when they appear, together with their fertilised seed-vessels—which, by a wise provision of nature, have remained buried in the earth during the winter). This plant is employed by medical men, and has an extraordinary effect in lulling the pain of gout and rheumatism; but it is a very dangerous medicine, and an over-dose has frequently proved fatal.



COMMON NAVEL-WORT.

In moist, warm places, a curious plant is found in flower at this season, called the Common Navel-wort (*Cotyledon Umbilicus*). It generally grows on walls or cottage roofs, or moist rocks; and its principal ornament consists in its singularly-

shaped leaves, which are drawn down in the centre, so as to form a kind of cup, or wine-glass, the stalk of which is formed by the foot-stalk which proceeds from the centre of the under side of the leaf. The whole plant is very succulent, including the flowers, which are greenish in the common kind. In the Greater Navel-wort, on the contrary, the flowers are the most ornamental part, as they are of a bright yellow, and they form a large erect spike; while the leaves are not remarkable for their beauty. In some parts of the country this plant is called Penny-wort, from the shape of the leaves, which are sometimes round and flat, like a penny.

In September flies begin to be very troublesome; and, though they do not sting like gnats or mosquitoes, they are, perhaps, still more disagreeable from the incessant buzzing they keep up around us, and the irritation they occasion by settling on the hands and face. The immense numbers of these troublesome insects surpass all belief, and it is said that in some places they have been known to be fifty to the square inch. "It is a remarkable, though as yet unexplained fact," observes Mr. Spence, in the sixth edition of the *Introduction to Entomology*, "that if rows of thread or string, with meshes a full inch square, be stretched over the open windows of a room in summer or autumn, when flies are the greatest nuisance, not a single one will venture to enter from without; so that by this simple plan a house may be kept free from these pests, while the adjoining ones, which have not bad nets applied to their windows, will swarm with them. In order, however, that the protection should be efficient, it is necessary that the rooms to which it is applied should have the light enter by one side only; for, in those which have a thorough light, the flies pass through the meshes without scruple." "It is a singular fact," Mr. Spence observes, in another place, "that Herodotus, above two thousand years ago, stated that the Egyptian fishermen protected themselves from the attacks of mosquitos by spreading their fishing-nets over their beds: a fact which has greatly puzzled all his commentators, who, not conceiving the possibility of mosquitos being kept off by fishing-nets, which must necessarily have wide meshes, have supposed the father of history to have alluded to some protection of fine linen, similar to the gauze nets now used against these insects. But in this, as in so many other instances, the supposed error is not that of Herodotus, but of his commentators, who, ignorant of the fact above related as to flies being excluded by wide-meshed nets, could not conceive it to be the case with mosquitos." As house-flies generally lay their eggs in stable manure, Mr. Spence suggests that the number of flies might be greatly lessened in large towns if the stable dung were kept in pits closed by trap-doors. However, if this were the case, it would not be completely efficacious, as it is known that flies will lay their eggs in almost any kind of filth; and their maggots have been found in sinks and other similar places. I was formerly supposed, from the experiments of Sir Everard Home, that flies were enabled to walk against glass, and with the back downwards in various situations, by the formation of a vacuum under the soles of their feet, if they may be so termed, as it was observed that the margins of the feet were closely applied to the glass, while the central part was drawn up. It has, however, now been discovered that this hypothesis was not correct, as Mr. Blackwall (a gentleman residing in Manchester, and an acute observer of nature) noticed that flies remained attached to the sides of an exhausted glass receiver of an air-pump, even after they had entirely lost the power of locomotion, and an evident distension of the body had been occasioned by the exhaustion of the air. To detach them from these stations, Mr. Westwood adds, the employment of a small degree of force was found requisite. "In prosecuting this subject, clean phials of transparent glass, containing spiders and various insects in the larva and imago (perfect) states, capable of walking on their upright sides, were breathed into, till the aqueous vapour expelled from the lungs was copiously condensed on their inner surface. The result was remarkable; the moisture totally prevented those animals from obtaining any effectual hold on the glass, and the event was equally decisive if a small quantity of oil was substituted for the aqueous vapour." In fact, it was found that powder, or any substance on the inside of the phials, prevented the flies from climbing, and the idea naturally suggested itself that some glutinous substance was emitted by the feet of the flies which enabled them to adhere to the glass. The next point to be determined, therefore, was, whether spiders and insects in the larva and perfect states were found to leave any visible track behind them when they crawled over glass; and, by the aid of powerful magnifying-glasses, it was found that traces were left of an exceedingly minute quantity of glutinous matter, which appeared to have been emitted by the feet of these creatures; and subsequent experiments proved that the hair-like appendages which form the brushes of spiders and flies are all tubular. It has often been observed that flies that have been half drowned, if taken out of the milk or water into which they have fallen, take a great deal of time in cleaning their feet before they can walk; and this, no doubt, is to clear out the brushes of their feet, and to bring them into a proper state for emitting the glutinous fluid.

The drone-fly (*Eristalis tenax*) bears so much resemblance to a bee that it is difficult at first sight to distinguish it from one; but on examining it carefully, it will be found that it has only two wings, whereas all kinds of bees have four. "The eggs of this fly," a writer in the *Gardeners' Chronicle* tells us, "are dropped in stagnant water while the female is on the wing." The larvæ are of a most extraordinary shape, being thick at one end, and having a long tail like the stalk of a plant at the other. "The underside exhibits an infinity of vessels, with a large mass or two under the thorax, like a bundle of salmon-coloured eggs. This insect has also numerous feet, surrounded by little hooks, distinctly projecting from the body, which assist it in walking. When the larva is full-fed, it crawls out of the water, and secretes itself amongst stones, in palings, or crevices of woodwork, &c.: having fixed itself, it gradually contracts as the skin dries and hardens, until it assumes an oval shape; it is then of a dirty ochreous brown colour, the anterior extremity is a little depressed, having two horns above, covered with glands on the upper surface for breathing, and beneath them are two similar, but very minute, horns; on the underside are seven pairs of spots formed of black horny points, and a slight indentation shows the position of the mouth; the tail, although useless in this stage, does not fall off." About the first week in September, "by dilating itself, the depressed portion of the pupa, to which the four horns are attached, is forced off, and the fly comes forth of a pale colour, with its wings shrivelled;" but, in a short time, the wings increase to their proper size, and the atmosphere hardens and colours the skin.

The ground beetles are occasionally covered with very small parasitical insects, which appear to annoy them exceedingly, as they run about shaking themselves as though they were using every possible effort to get rid of their tormentors; and on one occasion a ground beetle was observed to run through the loose particles of a heap of lime rubbish, squeezing itself through with considerable difficulty, but emerging on the opposite side quite clear of its parasitical insects, which had been all brushed off by the loose particles of rubbish through which the beetle had forced itself.



DRONE FLY.





M D	W D	ANNIVERSARIES, OC- CURRENCES, RES- TIVALS, &c.	SUN.						MOON.						DURATION OF MOONLIGHT.						HIGH WATER				Day of the Year.
			SOUTH.						SOUTH.						Before Sunrise.			After Sunset.			At London Bridge.				
			Rises.	Before 12 o'Clock.	Height at Noon.	Sets.	Rises.	Before 12 o'Clock.	Height at Noon.	Sets.	Rises.	Before 12 o'Clock.	Height at Noon.	Sets.	O'Clock. 2h. 4h. 5h.	O'Clock. 7h. 8h. 10h.	Morning.	Afternoon							
1	Tu	Remigius. Phst. [shooting begins.	h. m.	m. s.	deg.	h. m.	h. m.	deg.	h. m.	h. m.	deg.	h. m.				25		h. m.	h. m.	274					
2	W		6	3	10	17	35	5	40	0	16	8	10	56	4	28	26		9	30	10	15	275		
3	Th	Old St. Matthias	6	5	10	36	35	5	38	1	32	9	7	52	3	4	28		11	0	11	40	276		
4	F	Gamma Aquila souths 6h.	6	7	11	54	34	5	35	2	52	10	3	48	1	4	59		No Tide.	0	10	277			
5	S	47m. P.M.	6	9	11	13	34	5	32	4	13	10	57	43	5	21		0	40	1	0	278			
6	S	Alpha Aquila souths 6h.	6	9	11	31	33	5	30	5	31	11	49	38	5	51		1	25	1	50	279			
7	M	47m. P.M.	6	10	11	48	33	5	27	6	49	Afternoon	33	6	18		2	2	10	2	30	280			
8	Tu	19TH S. aft TRIN. [Faith	6	12	12	5	33	5	25	8	7	1	31	28	6	44		3	2	55	3	15	281		
9	W	Length of day 11h. 8m.	6	14	12	22	32	5	22	9	21	2	21	24	7	12		4	3	35	3	50	282		
10	Th	W. St. Denys [beg	6	16	12	38	32	5	20	10	30	3	11	21	7	45		5	4	10	4	30	283		
11	F	Oxf. and Cam. T.	6	17	12	54	31	5	18	11	35	4	1	19	8	22		6	5	25	5	5	284		
12	S	Old Michael. Day	6	19	13	9	31	5	15	Afternoon	4	51	18	1	9	5		7	5	25	5	45	285		
13	S	Fire Insur. due	6	20	13	24	31	5	13	1	26	5	40	18	9	55		8	6	5	6	30	286		
14	M	20TH S. aft. TRI- surv. Translation of Edward the Confessor.	6	22	13	39	30	5	11	2	10	6	29	19	10	51		9	6	50	7	20	287		
15	Tu	Beta Aquila souths 6h. 11m.	6	22	13	53	30	5	8	2	47	7	16	20	11	50		10	7	55	8	35	288		
16	W	P.M.	6	25	14	6	30	5	6	3	18	8	1	23	1	56	Morning.	11	9	20	10	0	289		
17	Th	Alpha Cygni souths 6h. 56m.	6	27	14	19	29	5	4	3	45	8	46	26	0	51		12	10	40	11	15	290		
18	F	P.M.	6	28	14	32	29	5	2	4	8	9	31	30	1	56		13	11	50	No Tide.	290			
19	S	Etheldreda	6	30	14	43	29	5	0	4	32	10	15	34	3	3		14	0	15	0	35	291		
20	S	St. Luke	6	31	14	54	28	1	4	4	53	11	0	39	1	4	10		15	0	55	1	15	292	
21	M	Alpha Aquarii souths 8h 7m.	6	32	15	5	28	1	4	5	15	11	45	43	5	19		16	1	30	1	45	293		
22	Tu	P.M.	6	34	15	15	27	4	54	5	40	Morning.	6	27				17	2	5	2	20	294		
23	W	Length of day 10h 20m	6	36	15	24	27	4	52	6	6	0	33	48	7	40		18	2	35	2	55	295		
24	Th	Length of night 13h 41m	6	38	15	33	27	4	50	6	37	1	23	52	8	53		19	3	10	3	30	296		
25	F	Twilight ends 6h 42m	6	40	15	40	26	4	47	7	15	2	16	55	10	5		20	3	45	4	5	297		
26	S	Day breaks 4h 47m	6	42	15	47	26	4	45	8	3	3	11	57	11	13		21	4	20	4	40	298		
27	S	St. Crispin	6	44	15	54	26	4	43	9	0	4	9	59				22	5	0	5	20	299		
28	M	Alpha Pegasi souths 8h 37m.	6	46	16	0	25	4	41	10	5	5	7	58	1	10		23	5	45	6	15	300		
29	Tu	P.M.	6	48	16	4	25	4	39	11	18	6	4	57	1	54		24	6	40	7	15	301		
30	W	22ND S. aft. TRIN.	6	50	16	9	25	4	37	Morning.	7	1	54	1	2	32		25	7	50	8	35	302		
31	Th	St. Simon and St. [Jude	6	51	16	12	24	4	36	0	34	7	55	50	3	2		26	9	20	10	5	303		
32	W	Alpha Andromeda souths 9h 21m	6	53	16	15	24	4	34	1	53	8	48	45	3	28			10	50	11	20	304		
33	Th	Twilight ends 6h 26m																							



## OCTOBER.

THE SUN is situated south of the Equator, and is moving south. On the 23rd day, at 6h. 13m. P.M., he passes from the sign Libra to Scorpio (the Scorpion), having been in the former sign 30 days 8 hours and 13 minutes. He rises and sets on the 11th, at the E. by S. and W. by S.; and on the 30th, at the E.S.E. and W.S.W. points of the horizon respectively. On the 1st day he is 95,039,000 miles from the Earth.

The Moon enters Leo on the 1st; Virgo on the 4th; Libra on the 7th; Ophiuchus on the 9th; Sagittarius on the 11th; Capricornus on the 13th; Aquarius on the 16th; Pisces on the 17th; Cetus on the 19th: she is near Pisces and Cetus on the 21st; and Aries and Cetus on the 22nd: she enters Taurus on the 22nd, and passes the Milky Way on the 25th: she enters Gemini on the 26th; Cancer on the 27th; Leo on the 28th; and Virgo on the 31st.

She is above the horizon when the Sun is below, during the morning hours from the 18th to the end of the month, and during the evening hours from the 8th to the 25th.

She is north of the Equator till the 5th, on which day she crosses the Equator going southward, and reaches her extreme south position on the 12th: she then begins to move northward; is on the Equator on the 19th, and on the 26th reaches an extreme north position.

She is near Mercury and Jupiter on the 5th; Mars on the 6th; Venus on the 9th; Saturn on the 20th; and Uranus on the 20th.

MERCURY is in the constellation Virgo throughout the month.

He is a morning star after the 8th, till which day the Sun rises before him; on the 5th he rises at 5h. 12m., being 1h. 3m. before the Sun; on the 24th he rises at 4h. 51m., being 1h. 50m. before the Sun; and on the last day, at 5h. 15m., the Sun rising 1h. 49m. afterwards. He is favourably situated from the 15th for observation before sunrise. On the 15th he rises midway between the E. and E. by S. points of the horizon; and near the end of the month the point of his rising is E. by S. nearly. He moves westward among the stars till the 15th; is stationary among them on the 16th; and moves eastward from the 17th, as is shewn in the diagram exhibiting his path in September.

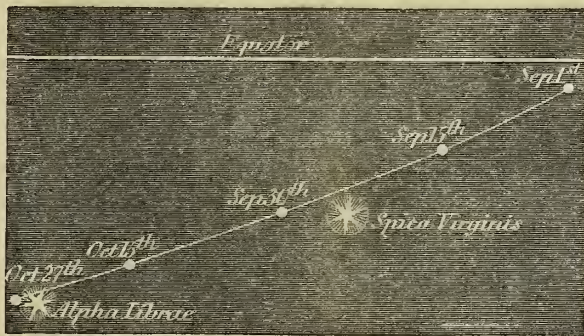
VENUS is in the constellation Libra till the 3rd, and in that of Scorpio from the 4th to the 26th; and in Sagittarius on the 27th.

She is an evening star; and sets, on the 1st, at 6h. 43m. P.M.; on the 15th, at 6h. 24m. P.M.; and on the last day, at 6h. 3m. P.M.; at the S.W. by W. at the beginning, and at the S.W. at the end of the month. She moves slowly eastward among the stars; is at her greatest elongation on the 6th; is near the Moon on the 9th, and Antares on the 14th. For her path among the stars, see the diagram in November; and for her telescopic appearance, see the engraving in December. She is now becoming brilliant.

MARS is in the constellation Virgo till the 14th, and then enters Libra.

He is an early evening star; and sets, on the 1st, at 6h. 9m. P.M.; on the 15th, at 5h. 32m. P.M.; and on the last day, at 4h. 55m. P.M.; near W. by S. at the

PATH OF MARS FROM SEPTEMBER 1 TO OCTOBER 27, 1850.



Scale, 12 degrees to one inch.

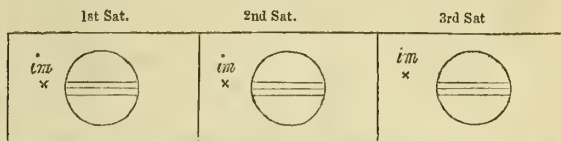
beginning, and the W.S.W. points of the horizon on the 18th. He is moving eastward among the stars, and is near the Moon on the 6th. His altitude above the horizon when he souths, at the beginning of the month, is 28°; and is 21°

at the end of the month. His path among the stars is shewn in the preceding diagram.

JUPITER is in the constellation Virgo throughout the month.

He sets, at the beginning of the month, the same time as the Sun sets; and after that time, he sets before the Sun. He rises, on the 1st, at 5h. 39m. A.M.; and on the last, at 4h. 18m. A.M., at the east point of the horizon. His altitude on southing, on the 1st, is 37°; and on the last day, is 35°. His motion is slowly eastward among the stars; and he is near the Moon on the 5th. His path among the stars is shewn in the diagram in May.

## RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION OR EMERSION.



SATURN is in the constellation Pisces throughout the month.

He is visible throughout the night; and rises midway between the E. and E. by N. points of the horizon, on the 1st day, at 6h. 3m. P.M.; on the 15th, at 5h. 6m. P.M.; and on the last day, at 4h. 0h. P.M. He souths at an altitude of 42° nearly. He moves slowly westward among the stars; and is near the Moon on the 20th. See the diagram of last month.

URANUS is in the constellation Aries throughout the month.

He rises, on the 1st, at 6h. 9m. P.M.; and on the 31st, at 4h. 9m. P.M. He souths, on the 15th, at 15 minutes after midnight, at an altitude of 49°. He moves slowly westward among the stars; and is near the Moon on the 20th.

NEPTUNE rises before the Sun sets; and sets, on the 1st, at 3h. 6m. A.M.; and on the last day, at 1h. 0m. A.M.

## ON THE APPARENT MOTIONS OF THE SUN, MOON, AND PLANETS.

(Continued from page 37.)

equinoxes, viz. 186 days, 10 hours, and 57 minutes, is 7 days, 15 hours, and 58 minutes longer than the interval between the autumnal and vernal equinoxes. The Sun moves with the greatest velocity when at a point situated near the winter solstice; his daily motion at this time is about 1 degree, 1 minute, and 10 seconds. He moves with the least velocity when at a point near the summer solstice, when his daily motion is about 57 minutes and 11 seconds. It is constantly varying between these points. The average of all his daily motions is 59 minutes and 11 seconds nearly, which is his rate of motion about the beginning of April and October.

The point of the solar orbit which is at the greatest distance from the earth is called the *apogee* (away from the Earth); and the apparent diameter of the Sun at this time, as viewed from the Earth, is about 31 minutes and 31 seconds, which is its least value. The point of the solar orbit which is occupied by the Sun when he is nearest the Earth is called *perigee* (near the earth); and at this time his apparent diameter is about 32 minutes and 36 seconds, which is its greatest value. The average of all his apparent diameters, or that diameter of the Sun when he is at his average distance, is about 32 minutes and 3 seconds.

The Sun when viewed by the naked eye appears to be uniformly luminous, but when examined by means of the telescope there frequently appear some spots of an irregular and ill-defined form upon his surface. These spots for some time past have been very frequent. Sometimes they are of an immense size, and visible without the aid of a telescope. These spots first appear at the eastern edge of the Sun, and disappear at his western edge; and at times the same spots, after the lapse of nearly a fortnight, re-appear at the eastern edge of the Sun. The interval of time between the same spots occupying the same relative position is about 27 days and 8 hours.

The motion of the Moon among the stars is very rapid. She passes over a space equal to her diameter in about one hour; and in the course of a few hours the apparent distances between her and adjacent stars are very different. Her apparent motion, like that of the Sun, is *always* from west to east.

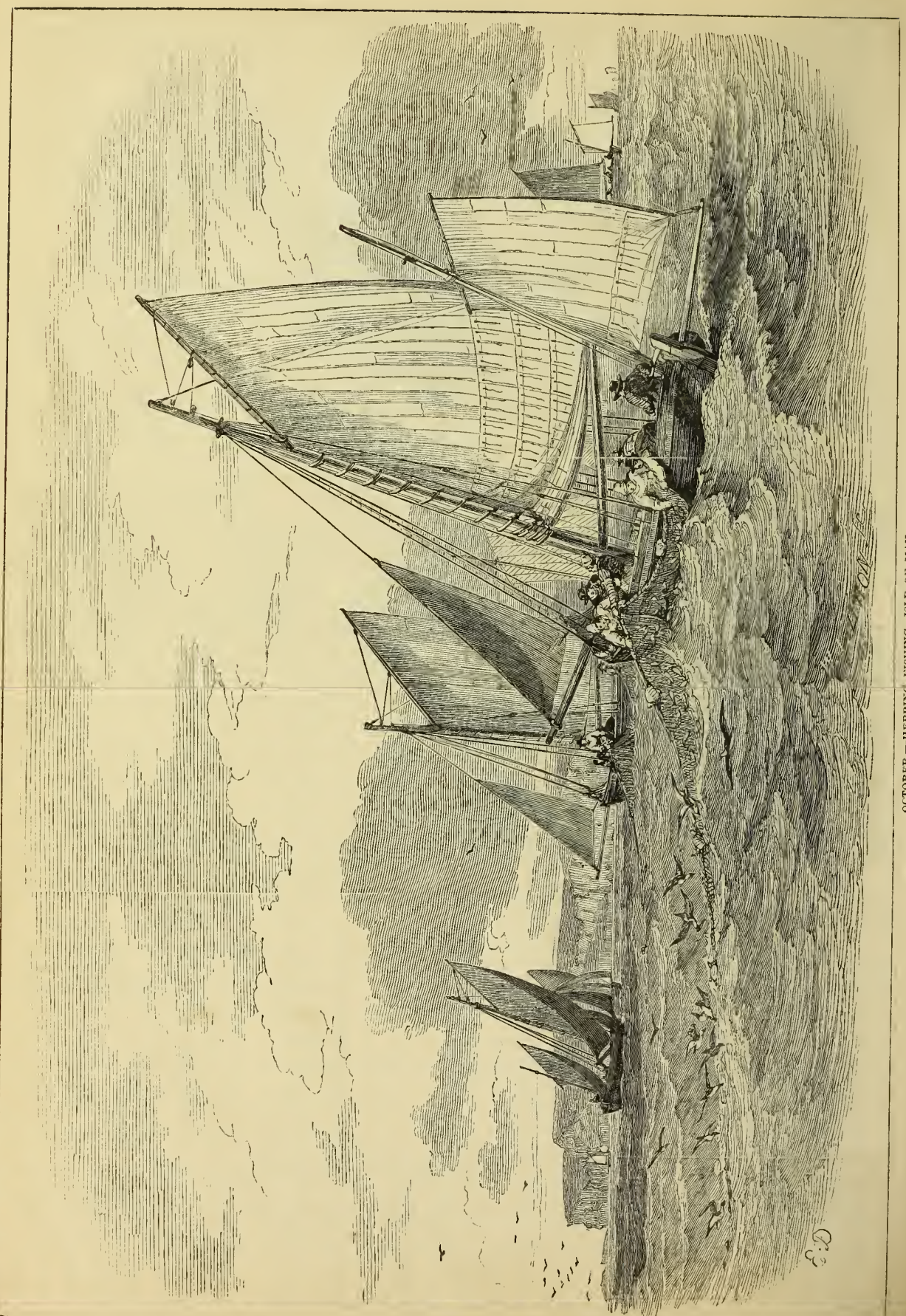
The various illustrations in this Almanack, exhibiting the apparent paths of the planets, include that of Mercury from January 1 to the middle of December; that of Venus from March 1 to the end of the year; that of Mars from January 1 to October 27; and those of Jupiter and Saturn for the whole year.

From these diagrams it will be remarked, that the apparent motions of the

(Continued on page 45.)

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.						JUPITER'S SATELLITES.		OCCULTATIONS OF STARS BY THE MOON.				
	Mercury.	Venus.	Mars.	Jupiter.	Saturn.	Neptune.			Names of the Stars.	Magni- tude.	Times of disappear- ance & re-appear- ance of the Stars.	At which limb of the Moon.	Between what Latitudes visible.
	Afternoon	Afternoon	Afternoon	Morning.	Morning.	Morning.							
1	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.			Regulus	1	{ 2 1 52 P.M.	In Day- light	17° N. & 90° N.
6	0 37	2 46	0 56	11 39	0 34	9 52							
11	Morn.	2 47	0 49	11 23	0 13	9 31			19 Capricorni	6	{ 2 2 47 P.M.	Dark	14° N. & 72° N.
16	11 23	2 48	0 43	11 7	Aftern.	9 11							
21	10 54	2 48	0 36	10 52	11 27	8 51			21 Capricorni	6	{ 14 7 14 P.M.	Bright	6° N. & 72° N.
26	10 41	2 48	0 30	10 36	11 6	8 31							
31	10 39	2 46	0 24	10 20	10 45	8 11			Gamma Tauri	3	{ 23 7 16 P.M.	Bright	47° N. & 90° N.
26	10 45	2 44	0 18	10 4	10 24	7 50							
Are not visible, Jupiter being too near to the Sun.													





OCTOBER.—HERRING FISHING, ISLE OF MAN.



## NOTES ON NATURAL HISTORY.—OCTOBER.

In this month many of the summer birds take leave of this country, and the winter birds arrive. Among the latter may be mentioned the wild swan, the wild goose, and the wild duck. All these aquatic birds make a harsh screaming as they pass over the land, which is the more annoying as they all fly at night as well as by day. The stork is the only one of these birds of passage which is not clamorous. "Before the storks take their departure from their northern summer residence," says Mr. Forster, "they assemble in large flocks, and seem to confer on the plan of their projected route. Though they are very silent at other times, on this occasion they make a singular clattering noise with their bills, and all seems hustle and consultation. It is said that the first north wind is the signal for their departure, when the whole body become silent, and move at once, generally in the night, and, taking an extensive spiral course, they are soon lost in the air." Cranes, on the contrary, are very noisy; but they are very rare in this country. Wild geese are, however, common; and the flocks are always in the shape of a wedge when they fly, so that the birds may cut the air with less individual exertion. Sometimes, however, they change their line to the resemblance of an A and an L, and sometimes they form a straight line; but the reason for these changes is not known. The Canada or cravat goose is only occasionally seen in this country: it is a remarkably beautiful goose, with a glossy black neck and white cheeks, which render it, as Mr. Waterton observes, "so particularly conspicuous, that those who have seen it once can never be at a loss to recognise it when viewed among all the other species of the goose tribe. There can be nothing," continues Mr. Waterton, "more enlivening to rural solitude than the trumpet-sounding notes of the Canada goose. They can be heard here [at Walton Hall] at most hours during the day, and often during the night." Mr. Waterton afterwards bought two barnacle geese at Rotterdam; and on their arrival at Walton Hall, they were turned on the lake in company with the Canadian geese. The following autumn one of these little barnacle geanders paired with a large old Canadian goose, and a nest having been made on the island the ill-assorted pair took possession of it, and the goose, having laid her eggs, began to sit. "Nothing," says Mr. Waterton, "could exceed the assiduity with which the little barnacle stood guard, often on one leg, over his hulky partner, day after day, as she was performing her tedious task. If anybody approached the place, his cackling was incessant; he would run at him with the fury of a turkey-cock; he would jump up at his knees, and not desist in his aggressions until the intruder had retired." At last two young geese were produced; and the vociferous gesticulations and strummings of the little gander were beyond all endurance when he first got sight of his long-looked-for progeny. The hybrids were elegantly shaped, and neither so large as the mother nor so small as the father, and they partook of the colours of both parents.

The trees are now almost all stripped of their leaves, but those which remain become of the most brilliant and vivid colours. All nature, however, assumes a gloomy appearance, which is only enlivened by the recollection that the return of spring will restore the beauty of the groves. The season, however, forcibly recalls the following beautiful lines from the beginning of Pope's translation of Homer:—

Like leaves on trees the race of man is found—  
Now green in youth, now withering on the ground;  
Another race the following spring supplies,  
They fall successive and successive rise:  
So generations in their course decay,  
So flourish these when those are pass'd away.

Among the plants which are still growing luxuriantly on moist heaths and



MARSH-PENNYWORT.

in marshy places, may be mentioned the little plant called marsh-pennywort or white-rot (*Hydrocotyle vulgaris*); the latter name alluding to its supposed evil properties in giving the rot to sheep; and the former to the situations in which it is found, and the shape of its leaves. The flowers are inconspicuous, but the plant itself is rather pretty; and it has the advantage of looking green and fresh when nearly all the vegetation around it has been brown and withered.

At this season immense quantities of herrings are found on the southern coast of England. The shoals of this fish (which is said to derive its name from the German word *heer*, an army, in allusion to its countless multitudes) are first seen off the Shetland Islands in April and May; but in the succeeding months they seem gradually to advance southward; till at last, about the beginning of September, there appears on the south coast an immense mass of fish, divided into distinct columns of five or six miles in length, by three or four in breadth.

These dense masses drive the water before them with a kind of rippling motion; and, as a writer on the subject has expressed it, "sometimes they sink for the space of ten or fifteen minutes, then rise again to the surface, and in bright weather reflect a variety of splendid colours, like a field of the most precious gems." Great shoals of pilchards appear in the same manner on the coast of Cornwall.

The water-scorpion (*Nepa*) is an extremely ferocious insect, which is said to be so savage as to destroy insects merely for the pleasure of killing them; as one that was put into a basin of water with some young tadpoles, is said to have killed them all without attempting to eat one. The common water-scorpion (*Nepa cinerea*) is found in ditches, ponds, and other pieces of stagnant water. These insects swim but slowly, and spend most of their time at the bottom of the water, seeking in the mud those insects which serve them as food, and which they seize very forcibly with their crab-like feet. At night they leave the ponds, and fly about with the greatest rapidity. The larva only differs from the perfect insect in its want of wings. It proceeds from an egg of a very singular form: it is oval, and from one end proceed several delicate filaments, which give it the appearance of the seeds of some of the plants belonging to the *Compositæ*. The water-scorpion sometimes leaves the water, and is seen crawling on the grass.



WATER-SCORPION.

The water-hoatman, or hoat-fly (*Notonecta*), is a very singular aquatic insect, which always swims on its back, striking out its legs like oars, to propel itself along. It is very ferocious, and not only destroys all the smaller insects which fall in its way, but it will attack insects larger than itself. Mr. Spence also mentions that one which he caught wounded his finger with its rostrum, and gave a sharp, severe pain, as though it had been burned. These insects are only found in standing waters or sluggish rivers, and they swim on the surface of the water, unless they are disturbed; but, on the approach of danger, they immediately disappear, though they cannot remain any great length of time without coming to the top to breathe. They frequently creep on the water-plants and the mud, in search of the insects on which they feed; and when the weather is fine and warm, they often land and fly about, sometimes to a considerable distance. The female lays her eggs, which are white and long in shape, on the leaves of aquatic plants; and, as soon as the young are hatched, they begin to swim on their backs like their mother. The larva only differs from the perfect insect in the want of wings.



BOAT-FLY.

To those who visit the sea-coast, the sea-weeds which are washed on shore by the tide afford a great source of enjoyment, from the beauty and variety of their forms and colours. The *Algae* or sea-weeds are, in fact, the vegetation of the bottom of the sea; and most of them grow under water, being torn from their roots by the force of the rushing waters, and washed on the beach by the rolling waves. Some species, it is true, appear to be always loosely floating in the water; but by far the greater number "grow attached to rocks, stones, or other substances," being fixed by the extension of the base of the stem into a broad concave plate, which either grasps the stone to which it adheres itself, or sends out numerous fibrils, which twine themselves round the rocks so firmly that they cannot be separated without laceration of their substance. The *Algae* are all edible; and, indeed, extremely nutritious, as they consist principally of albumen and mucilage: the latter quality renders them very useful in coughs and other affections of the chest, and as a substitute for isinglass in making jelly. Besides these qualities, some of the sea-weeds contain iodine, and most of them, when burnt, yield kelp, which is used in the manufacture of glass, &c. One of the most curious of all the kinds of sea-weed is what is sometimes called the Gulf weed; but it is also known by the name of *Sargassum*, or Sea Grape. This *Alga* is a native of the Tropics, and is found principally in the Gulf of Mexico, but it is sometimes washed on shore on the Orkney Islands, and it has been known occasionally to reach the coast of Scotland. It is, however, most abundant in the Atlantic, one part of which is called by mariners the Weedy Sea, from the immense quantity of this weed which floats on the surface of the water, and which sometimes actually impedes "the course of vessels for days together; the ocean for hundreds of miles presenting the appearance of a vast swamp or inundated meadow, and justifying the fears of the sailors in the first voyage of Columbus, who observing their slow progress and the increasing quantity of the weed, became alarmed lest, forcing their passage against the will of Heaven in search of an unknown country, their return might be rendered impossible. The accumulation of this weed in the Northern Atlantic extends nearly across its whole breadth, beginning on the east at the 30th meridian, and reaching the Bahama Islands on the west; the greatest quantities being aggregated at its eastern and western extremities, forming, as it were, two great banks, of which the former is more extensive, being upwards of twelve hundred miles from north to south." The bladder chain, or *Cystoseira*, is of a dark olive green or brown hue, becoming almost black when dry. It is of a firm leathery substance, and is common on the coasts of Devonshire and Cornwall, and in the south of Ireland. It is interesting from the manner in which it is fixed to the stones, as, instead of having a root, it is attached by a flat hard disk, which, when clinging to the stone, looks just like one of the leather suckers with which boys amuse themselves by carrying stones. The *Halidrys*, or sea tree, is a very common sea-weed, which is fixed to rocks and stones by a larger sucker, frequently from one to four feet long. The bladder *Fucus* is another very common sea-weed, and, in fact, it forms the great mass of the weeds thrown by the sea upon the land, which are collected for the purposes of manure. It is sometimes called the sea-wrack, and in other places kelp-ware, as it is burnt for the sake of making kelp. This weed has a number of little bladders in its fronds, which children amuse themselves with breaking by clapping the fronds between their hands. The seed-vessels are shaped like a pine-apple, and they are produced at the extremity of the fronds. There are several other kinds of *Fucus*, all of which are very common on the British coast. The sea-weed called *Alaria*, or bladder-jacks, is very good to eat; and what is called the tangle (*Laminaria digitata*) is boiled for the purpose of feeding cattle. Dr. Neill states, "that the stems in Scotland are sometimes made into knife-handles: for this purpose a pretty thick stem is selected and cut into pieces about four inches long; into these, while fresh, are stuck blades of knives, such as gardeners use for pruning and grafting. As the stem dries it contracts and hardens, closely and firmly embracing the hilt of the blade. In the course of some months the handles become quite firm, and very hard and shrivelled, so that when tipped with metal they are hardly to be distinguished from hartshorn." There are many other kinds of sea-weed, particularly the beautiful pink *Delesseria*; the *Pilota plumosa*, which is sometimes of a pale crimson, and sometimes green; and several other extremely beautiful plants of the most brilliant colours and delicate texture.





		SUN.					MOON.					DURATION OF MOONLIGHT.				HIGH WATER		Day of the Year.
		SOUTHS.					SOUTHS.					Before Sunrise.		After Sunset.		AT LONDON BRIDGE.		
M	W	Rises.	Before 12 o'Clock.	Height above horizon.	Sets.	Rises.	Before 12 o'Clock.	Height above horizon.	Sets.	O'Clock.	2h. 4h. 6h.	Moons Age.	O'Clock.	6h. 8h. 10h.	Morning.	Afternoon.		
D	D	ANNIVERSARIES, OC-CURRENCES, FESTIVALS, &c.																D
1	F	All Saints																305
2	S	Mich. Term beg.																306
3	S	23RD S. aft. TRIN																307
4	M	William III. land																308
5	Tu	Gunpowder Plot																309
6	W	Leonard																310
7	Th	Length of day 9h 16m																311
8	F	Length of night 14h 45m																312
9	S	Lord Mayor's D.																313
10	S	24TH S. aft. TRIN.																314
11	M	St. Martin																315
12	Tu	Camb. T. divides																316
13	W	Britius																317
14	Th	Alpha Perasi souths 7h 21m P.M.																318
15	F	Machutus																319
16	S	Alpha Andromede souths 8h 17m P.M.																320
17	S	25TH S. af. TRIN.																321
18	M	[Hugh, Bishop of Lincoln]																322
19	Tu	Alpha Arctis souths 10h 3m P.M.																323
20	W	Ed. King & Mar.																324
21	Th	Princess Royal b.																325
22	F	St. Cecilia																326
23	S	Old Martin. Day																327
24	S	26TH S. aft. TRIN																328
25	M	Mich. Term ends.																329
26	Tu	[Catherine																330
27	W	Princess Mary Adelaide (born, 1833.)																331
28	Th	Day breaks 5h 39m																332
29	F	Twilight ends at 5h 58m.																333
30	S	St. Andrew																334



# THE ILLUSTRATED LONDON ALMANACK FOR 1850.

## NOVEMBER.

THE SUN is situated south of the Equator, and is moving south. He passes, on the 22nd day, at 3h. 7m. P.M. from the sign Scorpio to Sagittarius, having been in the former sign 29 days 20 hours and 54 minutes. He rises and sets on the 1st near the E.S.E. and W.S.W.; and on the 26th, at the S.E. by E. and S.W. by W. points of the horizon. On the 1st day his distance from the earth is 94,224,000 miles.

The Moon is in Virgo till the 3rd; on which day, at 9h. P.M., she enters Libra, Ophiuchus on the 5th, Sagittarius on the 7th, Capricornus on the 10th, Aquarius on the 12th, Pisces on the 14th, Cetus on the 15th, near Pisces and Cetus on the 17th, and she is moving on the boundaries of Aries and Cetus on the 19th; she enters Taurus on the 19th, crosses the Milky Way on the 21st, enters Gemini on the 22nd, Cancer on the 23rd, Leo on the 25th, and Virgo on the 27th.

She is above the horizon when the sun is below; during the morning hours, from the 15th to the end of the month; and during the evening hours, from the 6th to the 22nd.

She is on the Equator on the 1st; at her extreme south position on the 8th: crosses the Equator on the 16th; at her extreme north position on the 22nd; and is again on the Equator on the 29th, going southward.

She is near Jupiter on the 1st; Mercury on the 2nd; Mars on the 4th; Venus on the 7th; Saturn on the 16th; Uranus on the 17th; and Jupiter on the 29th.

MERCURY is in the constellation Virgo till the 8th; in Libra from the 9th to the 23rd; in Scorpio from the 24th to the 27th; and he moves on the boundaries of Scorpio and Ophiuchus to the end of the month.

He is a morning star till towards the end of the month. He rises on the 1st at 5h. 19m.; on the 10th, at 6h. 6m.; and on the 25th, at 7h. 30m. The Sun on these days rises 1h. 37m., 1h. 4m., and 6m. after the planet. The planet rises on the 1st, at the E. by S.; on the 12th, at the E.S.E.; and on the 25th, at the S.E. by E. points of the horizon. He moves eastward among the stars during the month; is near the Moon on the 2nd, and Mars on the 28th. The position they occupy in the heavens at these times will be seen by reference to the annexed diagram, showing the path of Mercury in the heavens.

PATH OF MERCURY FROM NOVEMBER 1 TO DECEMBER 13, 1850.



Scale, 12 degrees to one inch.

VENUS is in the constellation Scorpio throughout the month.

She is an evening star; and sets on the 1st, at 6h. 2m. P.M.; on the 15th, at 5h. 42m. P.M.; and on the last day, at 5h. 10m. P.M.; near the S.W. point of the horizon all the month. She moves slowly eastward to the 23rd; is stationary from the 24th to the 27th; and moves slowly westward among the stars to the 28th. She is at her greatest brilliancy on the 10th; and is near the Moon on the 7th. Her path in the heavens is shown in the annexed engraving; and for her telescopic appearance see next month.

MARS is in the constellation Libra till the 19th; on which day he enters Scorpio. He sets on the 1st, at 4h. 52m. P.M.; and on the last day, at 3h. 47m. P.M.

Till the 24th he sets a few minutes after the Sun; and after the 24th, a few minutes before the Sun. He sets near the S.W. by W. point of the horizon; he is moving eastward among the stars; is near the Moon on the 4th, and Mercury on the 23th. His altitude above the horizon when he souths, on the 1st, is 21°; and it is 16° on the last day.

JUPITER is in the constellation Virgo throughout the month.

He rises on the 1st at 4h. 15m. A.M.; and on the last day at 2h. 51m. A.M., at the E. point of the horizon. His altitude on southing, on the 1st, is 35°; and on the last day, is 33°. He moves eastward among the stars; is near the

PATH OF VENUS FROM AUGUST 21 TO DECEMBER 31, 1850.



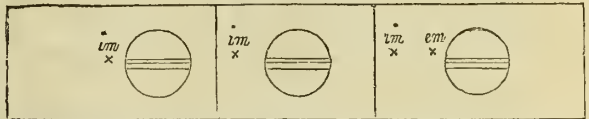
Scale, 24 degrees to one inch.

Moon on the 1st, and again on the 29th. His path among the stars is shown in the diagram in May.

JUPITER'S SATELLITES.—A few Immersions, of which those of the first, second, and third Satellites are visible. The relative position of the Satellites to Jupiter at the instant of the eclipse is shown in the annexed diagram, as viewed through an inverting telescope.

RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION OR EMISSION.

1st Sat. 2nd Sat. 3rd Sat.



SATURN is in the constellation Pisces throughout the month.

He is visible throughout the greater part of the night. He rises before the Sun sets; and sets midway between the W. and W. by N. points of the horizon, on the 1st, at 4h. 46m. A.M.; and on the last day, at 2h. 44m. A.M. He souths at an altitude of 42° nearly. He moves slowly westward among the stars; and is near the Moon on the 16th. See the diagram in September.

URANUS is in the constellation Aries throughout the month.

He sets on the 1st, at 6h. 3m. A.M.; and on the 30th, at 4h. 2m. A.M. He souths at 10h. 4m. P.M., at an altitude of 48°, on the 15th. He moves slowly westward among the stars; and is near the Moon on the 17th.

NEPTUNE sets on the 1st, at 0h. 55m. A.M.; and on the last day, at 10h. 59m. P.M.

## ON THE APPARENT MOTIONS OF THE SUN, MOON, AND PLANETS.

(Continued from page 41.)

planets are not always, like those of the Sun and Moon, in the same direction, but that they generally are moving in that direction, viz. from west to east.

Till the planets Mercury and Venus reach their greatest eastern elongation, or those planets, whose distances from the Sun are greater than that of the Earth, reach their eastern quadratures, their apparent motions are from west to east; in the course of a few days afterwards they seem to be stationary among the stars.

(Concluded on page 49.)

Days of the Month.	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.						JUPITER'S SATELLITES.				OCCULTATIONS OF STARS BY THE MOON.					
	Mercury.		Venus.		Mars.		Jupiter.		Saturn.		Uranus.		Mercury.		Venus.	
	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.	Morning.	Afternoon.
1	10 47	2 43	0 16	10 1	10 19	7 46	10 1	10 19	7 46	7 46	10 1	10 19	10 1	10 19	10 1	10 19
11	10 56	2 38	0 11	9 45	9 59	7 26	9 23	9 37	7 6	7 6	9 23	9 37	9 23	9 37	9 23	9 37
16	11 18	2 21	0 6	9 19	9 17	6 46	8 57	8 56	6 26	6 26	8 57	8 56	8 57	8 56	8 57	8 56
21	11 30	1 7	11 56	8 40	8 36	6 6	8 40	8 36	6 6	6 6	8 40	8 36	8 40	8 36	8 40	8 36
26	11 42	1 49	11 51	8 27	8 20	5 50	8 27	8 20	5 50	5 50	8 27	8 20	8 27	8 20	8 27	8 20
30	11 53	1 31	11 48													

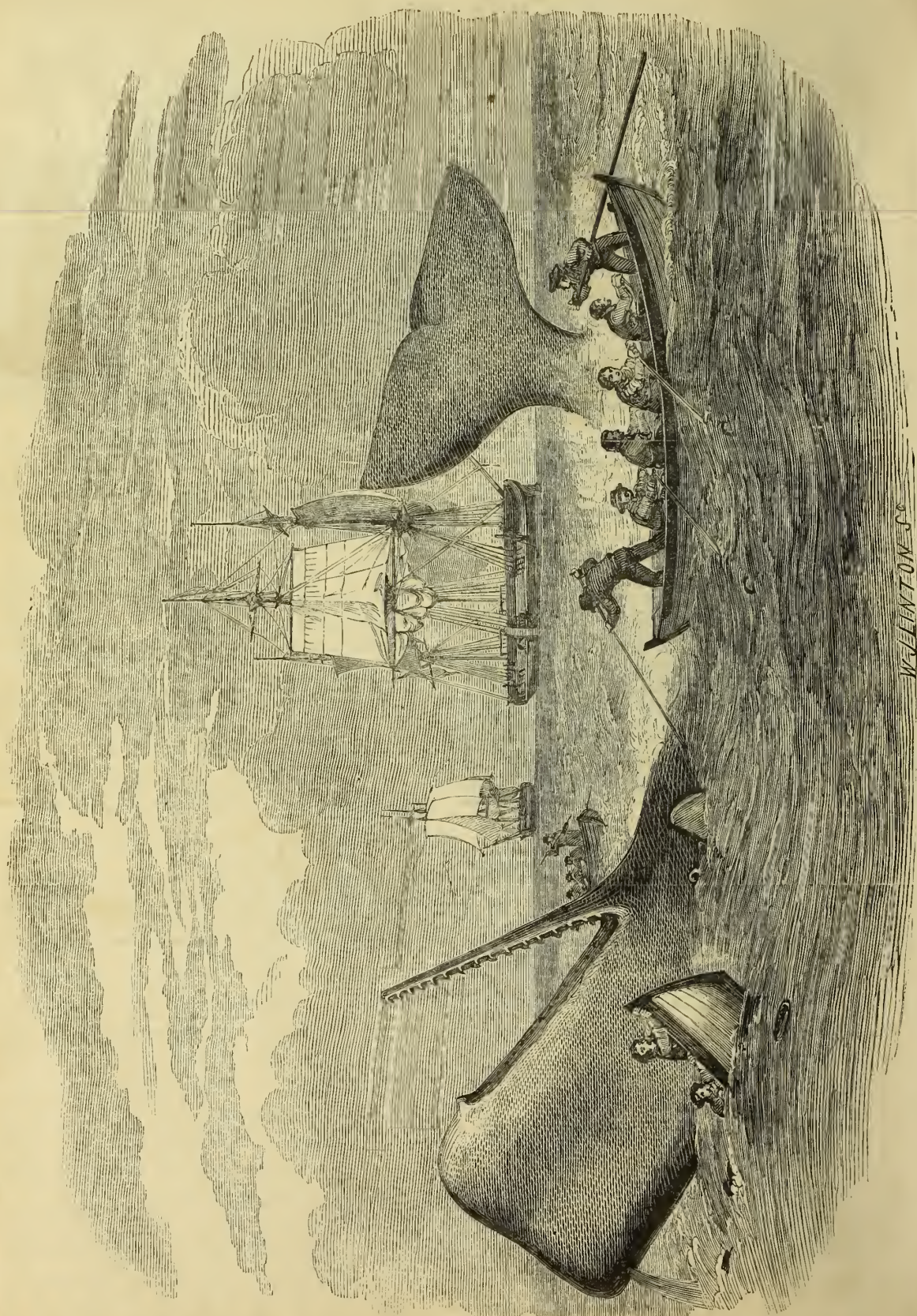
  

Days of the Month.	Eclipses of				Occultations of Stars by the Moon.			
	1st Sat.		3rd Sat.		Names of the Stars.		Times of disappearance & re-appearance of the Star.	
	Immersion.	Immersion.	Immersion.	Immersion.				
1	23 4	42 A.M.	15 6	7 A.M.	A Star	6	7 6 29 P.M.	Bright 1° S. & 60° N.
11	30 6	36 A.M.			33 Sagittarii	6	8 5 8 P.M.	Bright 25° N. & 68° N.
16					45 Aquarii	6	8 6 23 P.M.	Bright 20° N. & 76° N.
21					Chi 3 Orionis	5	12 9 25 P.M.	Bright 12° N. & 78° N.
26	15 5	37 A.M.					21 10 3 P.M.	Bright 12° N. & 78° N.
30							21 10 10 P.M.	Bright 12° N. & 78° N.

RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.															
MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.			
Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination South.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination North.	Right Ascension.	Declination South.
NEW MOON .. 4D. 2H. 40M. A.M.															
FIRST QUART. 11 11 15 P.M.	1	13h. 28m.	7° 0'	17h. 25m.	27° 51'	14h. 58m.	17° 0'	12h. 42m.	3° 19'	1h. 3m.	3° 43'	1h. 45m.	10° 13'	22h. 26m.	10° 38'
FULL MOON 19 4 35 P.M.	6	13 57	10 15	17 39	27 58	15 12	17 1	12 46	3 42	1 2	3 36	1 44	10 9	22 26	10 38
LAST QUART. 26 0 32 P.M.	11	14 28	13 24	17 52	27 54	15 27	18 59	12 50	4 5	1 0	3 30	1 43	10 5	22 26	10 37
APOGEE .. 11 2 P.M.	16	14 59	16 21	18 2	27 37	15 41	19 52	12 53	4 27	0 59	3 24	1 42	10 1	22 26	10 35
PERIGEE .. 23 3 P.M.	21	15 30	19 0	18 7	27 10	15 56	20 42	12 57	4 48	0 58	3 20	1 42	9 57	22 26	10 32
	26	16 3	21 16	18 9	26 30	16 11	21 26	13 0	5 8	0 58	3 16	1 41	9 54	22 26	10 30





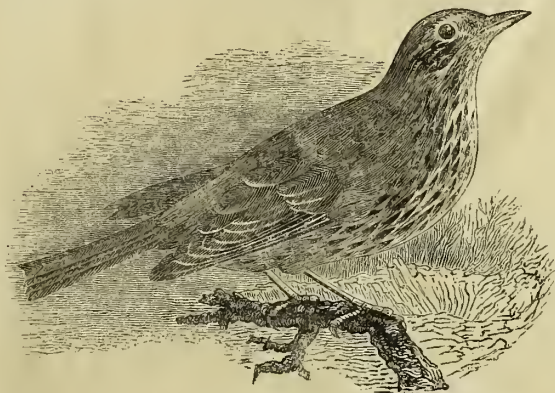
WELINGTON SC

NOVEMBER.—WHALE FISHING.



## NOTES ON NATURAL HISTORY.—NOVEMBER.

THE 1st of November is All Saints' Day; and the night before, which is called Allhallow E'en, is celebrated by various rural sports and modes of divination. With the commencement of November, however, the gaiety of nature seems to cease. Among birds, however, November is a gayer month than July and August; for, in November, many of them sing as agreeably as in early spring. In this month most of the summer birds take their departure, but the winter birds arrive to take their places. Among these winter birds, one of the best songsters is the redwing, which arrives in flocks from the north and north-east of



REDWING.

Europe, not later than the first week in November, arriving generally a week or two before the fieldfare; and, when the winters are severe, Mr. Yarrell informs us that it has been observed "that the redwings are unable to hear hard weather so well as the fieldfares. While in this country, the redwings inhabit parks and pleasure-grounds that are ornamented with clumps of trees; and, like the common thrush, which they most resemble in their external appearance, they seek their subsistence in mild and open weather in pasture lands and moist meadows, feeding principally on worms, snails, and other soft-bodied animals. They are much less inclined to feed on berries than most of the thrush tribe; and, should the resources usually obtained by their search on the ground be closed against them by long-continued frost and snow, the redwings are the first among birds to suffer; and during some severe seasons, such as 1799, 1814, and 1822, hundreds have been found almost starved, alike unable to prosecute their journey farther south to more congenial countries, or to bear the rigour of this." The song of the redwing is generally allowed to be very beautiful; and Linnæus, several times in his *Tour in Lapland*, mentions the song of the redwing, "whose amorous warblings from the top of a spruce fir," he says, "were delightful; its high and varied notes rivaling those of the nightingale herself." Other writers praise the "delightfully wild notes" of this bird, and mention that in Sweden and Norway, where it breeds, it is excessively shy when any one approaches its nest.

Oysters are in perfection in this month. They are generally found fixed to a rock, or some other submarine object, apparently enjoying only the nourishment brought by the waves, and scarcely giving any sign of life except by the opening and shutting of the valves. The oysters adhere to stones and other objects by means of a mucilaginous liquid with which they are covered as soon as they are formed, and which seems to be of the same nature as that with which they increase their shells. In some places, particularly at the mouths of the great African rivers, where there are great quantities of mangrove trees growing with their trunks several feet deep in the water, great quantities of oysters are found attached to the roots and lower branches of the trees; so that, as Mrs. Lee tells us, it is by no means an uncommon occurrence to send a slave to cut off a branch or two of the tree-oyster to furnish a meal. She adds, that these oysters, which are generally very small, are remarkably delicate in their flavour. Oysters are also often found fixed to the backs of crustaceous animals—such as crabs and lobsters; and occasionally to the shells of other molluscous animals. As oysters belong to that class of molluscous animals which are furnished with two muscles attaching them to their shells, they can shut the valves with great force, and compress them close with extraordinary tenacity. Several curious stories are told of monkeys being caught by oysters in this manner; and on one occasion, it is said that a cat, having ventured on the sea-shore at low water, and having attempted to seize an oyster fixed firmly to a rock, was caught by the oyster closing the valves of its shell the moment it was pricked by the claw of the cat, and held there till it was drowned by the coming in of the tide.

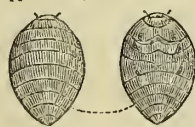
The fieldfare, which is very nearly allied to the redwing, appears later in the season, arriving in large flocks, which spread themselves over the whole country, covering the pasture lands, and particularly the neighbourhood of rickyards, in search of worms and slugs, or any other soft-bodied animals that they can find, though of the appearance of frost and snow they fly to the hedges and feed upon any berries they can find. The call note of the fieldfare is very harsh; and though its song is harmonious, it is very inferior in beauty to that of the redwing. The common song thrush remains in England all the year, and it feeds principally on insects, worms, and snails, picking the latter off the walls or trees on which they have fixed themselves to pass the winter, and breaking the shell very adroitly by beating it against a stone or a wall.

At this season, when the summer flowers are all over, and the ground is frequently covered with snow, there is scarcely anything left in the open air to interest the lover of a garden. It is true there is the resource of greenhouse plants; but plants in pots, when kept in a room, have generally an unhealthy appearance, as they are seldom set out in the open air, and they are kept continually in an atmosphere which is highly injurious to them. At this season, therefore, it is very desirable to try experiments on vegetation, and the method which has been discovered of raising plants in hyacinth-glasses affords a very agreeable substitute for the interest which is felt in spring by the amateur gardener in watching the development of vegetation in the open air. It is not exactly known with whom the idea of raising plants in this manner first originated, but it has been practised for some years, as some ladies residing near Epsom had, in 1835, eaten nuts from hazel bushes which they had reared in glasses, and afterwards planted out in the open ground. The mode of managing acorns in hyacinth-glasses is thus given in the *Field Naturalist* for April, 1833:—"Let a common hyacinth-glass, or other glass if more convenient, be filled about half or a third part full of

water; and a piece of card be prepared as a cover for the opening of the glass, so as to fit close and exclude the air. Fasten a strong thread or a piece of brass wire round an acorn—not iron wire, for it will rust and corrode the acorn, and frustrate the experiment. Suspend the thread or brass wire from the card, or from a small transverse bar of wood or metal beneath it, so that the acorn may be sustained at a short distance above the surface of the water, but near enough for the steam, which will be generated by the glass being kept in a warm room, to be communicated to the acorn, from which it will depend in a large drop. In a few weeks the germ will be found to burst the shell of the acorn; and in about a fortnight afterwards, the radicle, or little root, will protrude itself through the cleft, and take a downward direction into the water, where it will be continually extended and enlarged, by degrees throwing out external fibres, until, after a few days more, the other member of the germ will be seen to rise upwards till it comes near the card that covers the vessel, through which a hole must be cut to allow of its free passage. This forms the stem of the tree, which will shortly be seen to throw out two cotyledons, or seed leaves, at its extremity, and shortly again other leaves; till, in the course of a few weeks from the commencement of the experiment, the tree will have grown to the height of several inches, and be ornamented at its top with leaves two or three inches long, and wide in proportion, besides smaller ones breaking out at its sides, the root meanwhile having continued growing to a length exceeding that of the stem." In the year 1842, an account of this method of growing oaks was given in Paxton's *Magazine of Botany*, substituting a piece of cork for the card, and thread for the brass wire.

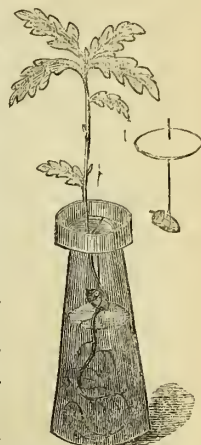
In all other respects the experiment was the same. Supposing the acorn to be put into the glass in November, it will probably begin to germinate in January, or sooner, according as the acorn was fresh or old. If the acorn were but just gathered when it was put in, it will probably begin to germinate in the course of a month or six weeks at farthest; but if it were an acorn of the previous year, it would most probably not show any signs of life for a couple of months, or even more. The great point to be attended to is, keeping the cavity in the upper part of the glass above the water firmly closed, so as to prevent any evaporation of the water into the open air, since it will be impossible for the acorn to germinate unless the moisture which rises from the water is condensed and thrown back upon it; for it must be observed that air and moisture are both essential to germination, and that if the acorn is suffered to be in the water the air cannot have access to it so as to make it grow. Many instances, indeed, have been known of seeds having remained under water for several years without vegetating; but which, the moment they were exposed to the air, began to grow: while, on the other hand, seeds, when kept perfectly dry, though they are exposed to the influence of the air, will remain an extraordinary length of time without germinating.

Among the many interesting plants grown in the Botanic Garden at Kew, may be mentioned the *Opuntia cochinillifera*, a kind of Indian fig, which is often attacked by a species of *Coccus*, when dried, forms the scarlet dye which we call cochineal. This Indian fig is very common in Mexico, where it is called the Nopal-tree, and where it is considered of so much consequence, from the value of the insects bred upon it, that it is introduced in the arms of the Republic. The *Opuntia* is a species of *Cactus*, with large, flat, roundish, leaf-like stalks, which produce the flowers and fruit, without the tree bearing any leaves properly so called. On these flat, leaf-like stalks, which are extremely succulent, there often appears a white woolly substance, resembling what is called the American blight on apple-trees; and this woolly substance is the covering of the female cochineal



THE FEMALE OF THE COCHINEAL INSECT (COCCUS CACTI).

insect, which is the insect used for the dye. When fully grown, these insects are collected in Mexico and other countries where the plant grows in great abundance, by women, who brush them off with the tail of a squirrel or a deer. They are then killed by dipping them in boiling water, or exposing them to heat in ovens of the sun, and are then ready for sale. The cochineal insect was formerly confined to Mexico; but, in the beginning of the year 1777, M. Thierry de Menonville was employed by the French Government to procure some of the insects from Mexico, for the purpose of introducing them into the French West India Islands—an enterprise for which four thousand livres had been allotted by the French Government. M. Thierry de Menonville "proceeded by the Havannah to La Vera Cruz, and was there informed that the finest cochineal insects were produced at Guaxaca, distant about seventy leagues. Pretending ill-health, he obtained permission to use the baths of the river Magdalena; but, instead of going thither, he proceeded, through various difficulties and dangers, as fast as possible to Guaxaca, where, after making his observations, and obtaining the requisite information, he affected to believe that the cochineal insects were highly useful in compounding an ointment for his pretended disorder (the gout), and therefore purchased a quantity of Nopals covered with these insects, of the fine or domestic breed, and putting them in boxes with other plants, for their better concealment, he found means to get them away as botanic trifles, unworthy of notice, notwithstanding the prohibitions by which the Spanish Government had endeavoured to hinder their exportation; and being afterwards driven by a violent storm into the bay of Campeachy, he there found, and added to his collection, a living *Coccus*, of a species which was capable of nourishing the fine domesticated cochineal. After which, departing for St. Domingo, he arrived safely with his acquisitions, on the 25th of September in the same year, at Port-au-Prince." The insects thus introduced succeeded so well, that, in ten or twelve years, St. Domingo became a powerful rival to Mexico in the production of the cochineal; but, during the political troubles of St. Domingo which followed the French Revolution, the plantations were destroyed. The value of the cochineal exported from Mexico is said by Humboldt to be about £500,000 annually. It is the female insect only from which the dye is taken; and the male insect has wings.



GERMINATION OF AN ACOIN IN WATER.



THE MALE OF THE COCHINEAL INSECT.





M	W	ANNIVERSARIES, OC- CURRENCES, FES- TIVALS, &c.	SUN.					MOON.					DURATION OF MOONLIGHT.					HIGH WATER		Day of the Year.		
			SOUTH.					SOUTH.										AT LONDON BAIDR.				
D	D		Rises.	Before 12 o'clock.	Height above horizon.	Sets.	Rises.	Morning.	Morning.	Height above horizon.	Sets.	Afternoon	Before Sunrise.	O'Clock.	2h. 4h. 6h.	After Sunset.	O'Clock.	6h. 8h. 10h.	Morning.	Afternoon		
			H. M.	M. B.	Deg.	H. M.	H. M.	H. M.	Deg.	H. M.	H. M.						Mon's Age.			H. M.	H. M.	
1	S	1st S. in ADVT.	7 46	10 47	16 3	53	4 42	10 2	28 1	3 12							27		No Tide.	0 20	335	
2	M	Length of day 8h 4m	7 48	10 24	16 3	52	5 54	10 51	24 1	3 39							28		0 45	1 10	336	
3	Tu	Length of night 15h 56m	7 48	10 0	16 3	52	7 4	11 41	21 1	4 12							29		1 30	1 55	337	
4	W	Day breaks 5h 45m	7 49	9 36	16 3	51	8 9	Afternoon	19	4 51							1		2 10	2 30	338	
5	Th	Twilight ends 5h 56m	7 51	9 11	16 3	51	9 9	1 23	18	5 35							2		2 50	3 10	339	
6	F	Nicholas	7 52	8 46	16 3	51	10 1	2 13	17 3	6 26							3		3 30	3 45	340	
7	S	Fomalhaut souths 5h 45m P.M.	7 53	8 20	15 3	50	10 44	3 2	18 3	7 23							4		4 5	4 20	341	
8	S	2d S. in ADVENT.	7 54	7 54	15 3	50	11 21	3 49	21 1	8 22							5		4 40	5 0	342	
9	M	[Concept. of B. V. Mary.	7 56	7 27	15 3	50	11 51	4 34	23 1	9 25							6		5 15	5 35	343	
10	Tu	Alpha Pegasi souths 5h 41m P.M.	7 57	7 0	15 3	49	Afternoon	5 19	26 3	10 30							7		5 55	6 15	344	
11	W	Alpha Andromedæ souths 6h 40 P.M.	7 58	6 32	15 3	49	0 39	6 2	30 1	11 34							8		6 40	7 0	345	
12	Th	Alpha Arietis souths 8h 33m P.M.	7 59	6 4	15 3	49	1 1	6 45	35	Morning.							9		7 30	8 0	346	
13	F	Lucy	8 0	5 36	15 3	49	1 20	7 28	39 1	0 40							10		8 35	9 10	347	
14	S	Alpha Ceti souths 9h 21m P.M.	8 0	5 7	15 3	49	1 43	8 14	44	1 47							11		9 45	10 15	348	
15	S	3d S. in ADVENT	8 1	4 39	15 3	49	2 6	9 1	48 1	2 57							12		10 50	11 20	349	
16	M	Camb. Term ends	8 2	4 9	15 3	49	2 33	9 52	52 1	4 10							13		11 50	No Tide.	350	
17	Tu	Oxford T. ends	8 3	3 40	15 3	49	3 6	10 47	56	5 24							14		0 10	0 35	351	
18	W	Ember Week	8 4	3 11	15 3	50	3 49	11 45	58 1	6 39							15		0 55	1 20	352	
19	Th	Day decreased 8h 50m	8 5	2 41	15 3	50	4 36	Morning.	—	7 51							16		1 40	2 5	353	
20	F	Pleiades souths 9h 41m P.M.	8 5	2 11	15 3	51	5 37	0 46	59 1	8 57							17		2 30	2 50	354	
21	S	St. Thomas	8 6	1 41	15 3	51	6 50	1 47	58 3	9 50							18		3 15	3 35	355	
22	S	4th S. in ADVENT	8 6	1 12	15 3	51	8 7	2 48	56 1	10 37							19		3 59	4 25	356	
23	M	[Shortest day	8 6	0 42	15 3	51	9 26	3 46	53 1	11 12							20		4 45	5 10	357	
24	Tu	Length of day 7h 45m	8 7	0 12	15 3	52	10 44	4 41	49	11 42							21		5 35	6 5	358	
25	W	CHRISTMAS DAY	8 7	After 12 o'clock.	15 3	52	Morning.	5 33	44	Afternoon							22		6 30	6 55	359	
26	Th	St. Stephen	8 8	0 48	15 3	53	0 2	6 23	39 1	0 30							23		7 25	7 55	360	
27	F	St. John	8 8	1 18	15 3	54	1 17	7 11	34 1	0 52							24		8 30	9 1	361	
28	S	Innocents	8 9	1 48	15 3	55	2 31	7 59	29 1	1 17							25		9 40	10 1	362	
29	S	1st S. aft. CHRIS	8 9	2 17	15 3	56	3 43	8 47	25 1	2 42							26		10 50	11 1	363	
30	M	Aldebaran souths 9h 51m P.M.	8 9	2 46	15 3	57	4 53	9 36	22 1	3 12							27		11 55	No Tide.	364	
31	Tu	Silvester	8 9	3 16	15 3	58	5 59	10 26	19 3	3 49							28		0 25	0 4	365	



## DECEMBER.

THE SUN is situated south of the Equator, and on the 22nd day attains his extreme south position. From the 23rd day he is moving northward. He passes from the sign Sagittarius to Capricornus, completing the tropical year, on the 22nd day, at 3h. 38m. A.M., having been in the former sign 29 days, 12 hours, and 31 minutes. On the 1st day he is 93,636,000 miles from the Earth; and this distance decreases to 93,412,000 miles by the 31st.

The Moon enters Libra on the 1st; Scorpio on the 2nd; Ophiuchus on the 3rd; Sagittarius on the 5th; Capricornus on the 7th; Aquarius on the 9th; Pisces on the 11th; Cetus on the 12th. She is near Pisces, Cetus, and Aries till the 16th, on which day she enters Taurus; crosses the Milky Way on the 19th; Gemini on the 19th; Cancer on the 21st; Leo on the 22nd; Virgo on the 24th; Libra on the 28th; and Ophiuchus on the 30th.

She is above the horizon when the Sun is below, during the morning hours, from the 17th to the 25th; and, during the evening hours, from the 6th to the 18th.

She reaches an extreme south position on the 5th; crosses the Equator on the 13th, going northward, and reaches an extreme north position on the 20th; then begins to move southward; crosses the Equator on the 26th; and almost reaches an extreme south position on the last day.

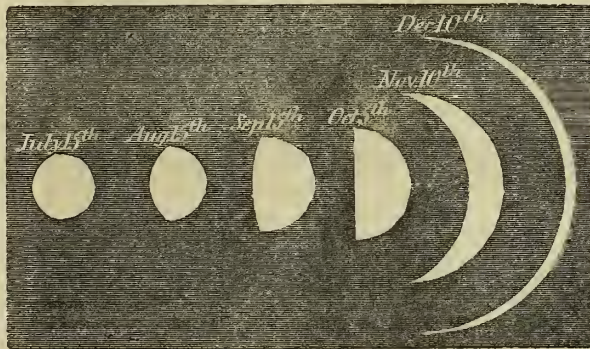
She is near Mars and Mercury on the 3rd; Venus on the 5th; Saturn on the 13th; Uranus on the 14th; Jupiter on the 26th; and Venus on the 31st.

MERCURY moves on the boundaries of Scorpio and Ophiuchus to the 7th; and he is in Sagittarius from the 8th to the end of the year.

He sets with the Sun for the first few days; and he is an evening star towards the middle and end of the month. He sets, on the 15th, at 4h. 14m.; and on the last day at 5h. 23m. The Sun sets on these days 25m. and 1h. 25m. respectively before the planet sets. He sets, throughout the month, nearly midway between the S.W. by W. and the S.W. points of the horizon. He moves eastward among the stars during the month; is near the Moon on the 3rd; and Venus on the 15th. His path in the heavens till the 13th of this month is shewn in the diagram in last month; after this time, his rapidity of motion towards the east continues about the same; on the 15th, he reaches his lowest point; and after this time his motion is towards the Equator, or upwards.

VENUS is in the constellation Sagittarius till the 22nd; and in that of Scorpio till the 23rd.

TELESCOPIC APPEARANCE OF VENUS FROM JULY TO DECEMBER, 1850.



Scale, 40 seconds of arc to one inch.

She is an evening star at the beginning of the month; and sets, on the 1st, at 5h. 4m. P.M.; and, on the 18th, at the same time as the Sun, about midway between the S.W. by W. and S.W. points of the horizon. She is moving slowly westward among the stars; is near the Moon on the 5th; Mercury on the 12th; Mars on the 20th; and the Moon again on the 31st. She is in inferior conjunction with the Sun on the 16th. Her path in the heavens is shewn in the diagram of last month; and her telescopic appearance at the beginning of the month is shewn in the above engraving; towards the end of the month her appearance will be the same as at the beginning of the month, except that the crescent will be in the opposite direction.

Mars is in the constellation Scorpio till the 18th; on this day he passes into Sagittarius.

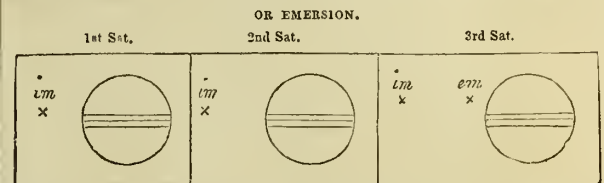
He rises and sets throughout the month very nearly at the same time as the Sun rises and sets; and he is, therefore, unfavourably situated for observation. He is moving eastward among the stars; is near the Moon on the 3rd, and Venus on the 20th. His altitude above the horizon when he is south, on the 1st, is 16°; and on the last day is 14° nearly.

JUPITER is in the constellation Virgo throughout the month.

He rises, on the 1st, at 2h. 48m. A.M.; and, on the last day, at 0h. 16m. A.M., midway between the E. and the E. by S. points of the horizon. His altitude on southing, on the 1st, is 33°; and, on the last day, is 31° nearly. He moves slowly eastward among the stars, and is near the Moon on the 26th. His path in the heavens is shewn in the diagram in May.

JUPITER'S SATELLITES.—A few eclipses are visible. The relative position of the Satellites to Jupiter at the instant of the eclipse is shewn in the annexed diagram, as viewed through an inverting telescope.

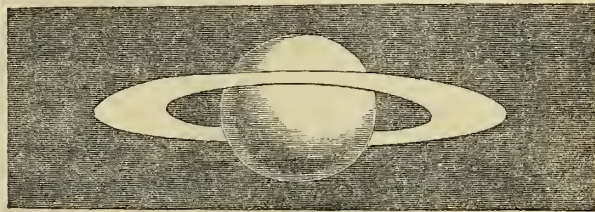
RELATIVE POSITION OF EACH SATELLITE TO JUPITER AT THE TIME OF IMMERSION



SATURN is in the constellation Cetus throughout the month.

He is an evening star; and sets, on the 1st, at 2h. 40m. A.M.; and on the last day at 42m. after midnight. He is south at an altitude of 41° nearly. He is almost stationary among the stars, and is near the Moon on the 13th. His position in the heavens is shewn in the diagram in September. The ring has opened a good deal during the year; and the telescopic appearance of the planet is shewn in the annexed diagram.

TELESCOPIC APPEARANCE OF SATURN IN DECEMBER, 1850.



Scale, 20 seconds of arc to one inch.

URANUS is in the constellation Pisces throughout the month.

He sets, on the 1st, at 3h. 58m. A.M.; and, on the 31st, at 2h. 1m. A.M. On the 15th, he is south at 8h. 3m. P.M., at an altitude of 48° nearly. He is near the Moon on the 14th.

NEPTUNE sets, on the 1st, at 10h. 54m. P.M.; and, on the last day, at 8h. 58m. P.M.

ON THE APPARENT MOTIONS OF THE SUN, MOON, AND PLANETS  
(Concluded from page 45.)

After a few days more, their apparent motion is in the opposite direction, or from east to west. In this case the motion is said to be retrograde; this movement is slow at first, but is continually increasing in velocity till the planet (Mercury or Venus) is in inferior conjunction; or, in the case of the superior planets, in opposition: it then gradually decreases, till the planet becomes stationary a second time; after which it begins to move from west to east, or to have direct motion, as before, and proceeds to pass through another series of similar motions. The retrograde motion is not of long continuance.

The general phenomena presented by the motions of the planets may be briefly stated to be as follows:—That, through the greater parts of their orbits, they move from west to east—that is, from the time of reaching their western elongation or quadratures, to the time of reaching their eastern extremes; having been in conjunction with the Sun in the meantime, becoming stationary, then moving from east to west, and forming at every succeeding opposition a kind of loop. (See the various diagrams.)

Days of the Month	TIMES OF THE PLANETS SOUTHING, OR PASSING THE MERIDIAN.						JUPITER'S SATELLITES.						OCCULTATIONS OF STARS BY THE MOON.									
	Mercury.		Venus.		Mars.		Jupiter.		Saturn.		Neptune.		Eclipses of				Names of the Stars.	Magni- tude.	Times of disappear- ance & re-appear- ance of the Star.	At which limb of the Moon.	Between what Latitudes visible.	
	Morning.	Afternoon	Morning.	Afternoon	Morning.	Afternoon	Morning.	Afternoon	Morning.	Afternoon	Morning.	Afternoon	1st Sat.		3rd Sat.							
														Immer- sion.		Im. I.	Emer. E.					
1	n. m.	n. m.	n. m.	n. m.	n. m.	n. m.	n. m.	n. m.	n. m.	n. m.	n. m.	n. m.	d. h. m.	d. h. m.	d. h. m.	d. h. m.	A Star	4	{ 15 8 20 P.M.	Dark	9° S. &	
6	11 56	1 26	11 47	8 24	8 16	5 46							16 4 52 A.M.	21 4 38 A.M. E.	28 5 55 A.M. I.		f Tauri	5	{ 15 9 10 P.M.	Bright	66° N.	
11	0 25	0 30	11 39	7 50	7 36	5 6							23 6 45 A.M.							{ 16 3 54 P.M.	Dark	28° N. &
16	0 40	Morn.	11 35	7 34	7 16	4 44							32 3 7 A.M.							{ 16 4 48 P.M.	Bright	90° N.
21	0 55	11 25	11 31	7 16	6 56	4 27							2nd Sat.					75 Tauri	6	{ 17 4 33 P.M.	Dark	25° N. &
26	1 9	10 56	11 28	6 59	6 37	4 7							Immer- sion.							{ 17 5 28 P.M.	Bright	90° N.
31	1 21	10 29	11 25	6 42	6 17	3 48							17 5 5 A.M.					Chi 2 Orionis	6	{ 19 5 25 A.M.	Bright	3° N. &
																				{ 19 5 51 A.M.	Bright	64° N.

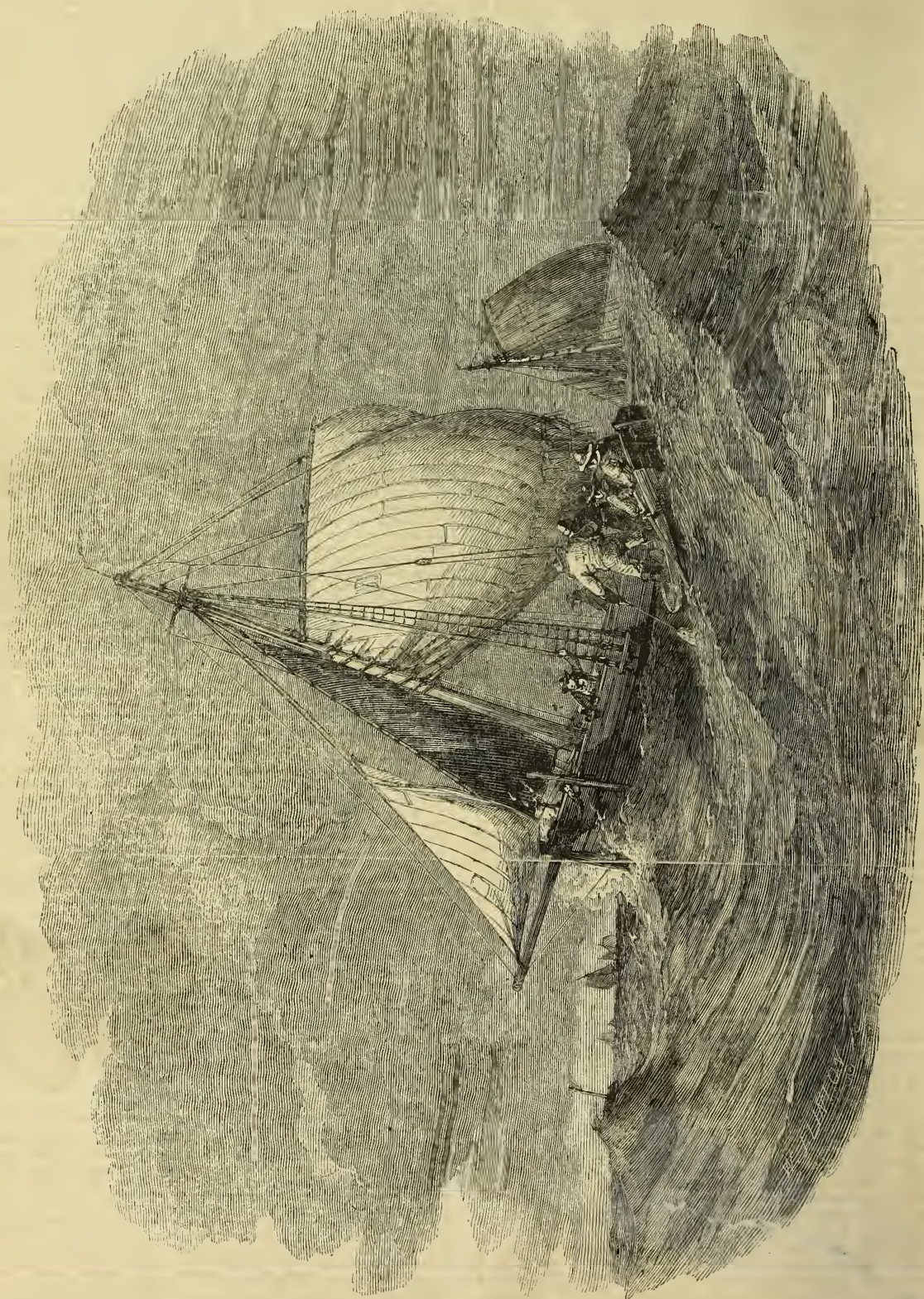
TIMES OF CHANGES OF THE MOON, And when she is at her greatest distance (Apogee), or at her least distance (Perigee), from the Earth on each Lunation.

Days of the Month	NEW MOON	1st QUARTER	FULL MOON	LAST QUARTER	APOGEE	PERIGEE
1	3d.	5h.	16m.	P.M.		
11		8 37	P.M.			
19		5 3	A.M.			
25		9 24	P.M.			
9		11	A.M.			
21		6	A.M.			

## RIGHT ASCENSIONS AND DECLINATIONS OF THE PLANETS.

Days of the Month	MERCURY.		VENUS.		MARS.		JUPITER.		SATURN.		URANUS.		NEPTUNE.	
	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination South.	Right Ascension	Declination North.	Right Ascension	Declination North.	Right Ascension	Declination South.
1	16h. 36m.	23° 6'	18h. 7m.	25° 38'	16h. 27m.	22° 6'	13h. 3m.	5° 27'	0h. 57m.	3° 13'	1h. 41m.	9° 51'	22h. 26m.	10° 39'
6	17 10	24 27	18 0	24 34	16 42	22 41	13 6	5 45	0 57	3 12	1 40	9 48	22 26	10 38
11	17 44	25 16	17 49	23 19	16 58	23 10	13 9	6 2	0 56	3 11	1 40	9 46	22 27	10 37
16	18 19	25 30	17 36	21 56	17 14	23 34	13 12	6 18	0 56	3 11	1 39	9 44	22 27	10 35
21	18 54	25 6	17 24	20 32	17 30	23 51	13 15	6 33	0 56	3 13	1 39	9 43	22 27	10 33
26	19 28	24 4	17 14	19 19	17 46	24 2	13 17	6 46	0 56	3 16	1 39	9 42	22 28	10 30





DECEMBER.—COD FISHING.



## NOTES ON NATURAL HISTORY.—DECEMBER.

In December, the robin redbreast and the wren are almost the only birds that are found cheerfully hopping about near dwelling-houses. The robin, in fact, becomes more familiar at this season; and, as Thomson beautifully expresses it,—

The redbreast, sacred to the household gods,  
Wisely regardless of the embroiling sky,  
In joyless fields and thorny thickets leaves  
His shivering mates, and pays to trusted man  
His annual visit. Half afraid, he first  
Against the window beats; then brisk alights  
On the warm hearth; then, hopping o'er the floor,  
Eyes all the smiling family asance,  
And pecks, and starts, and wonders where he is:  
Till, more familiar grown, the table crums  
Attract his slender beak.

In Italy, Mr. Waterton informs us, the robin redbreast is used as food; and he says, in the bird-market near the Rotunda, at Rome, he has counted more than fifty robin redbreasts lying dead on one stall.

The fearful cry of the owl sounds more alarming in winter than at any other season; and the form of the barn owl flitting through the leafless trees has a more striking and ghost-like appearance in winter than it ever can have in summer. "The characters and appearance of owls," says Mr. Yarrell, "are so singular and so peculiar, that, once having seen them, they are not readily forgotten. They have but little external beauty of form. The head is large, the expression grotesque, and the body hulkily in appearance, though the plumage is soft and downy. Unlike the falcons, which hunt for their food by day, the owls seek their prey during the twilight of morning and evening, and probably during the greater part of the night, if the state of the moon or the atmosphere affords sufficient light for the purpose. From this habit of flying by night, the singular appearance of the bird produced by the arrangement of the feathers of the face, forming a broad circular disk, a peculiar hollow tone of voice, unlike that of any other bird, and the additional circumstance of most of the species selecting ivy-covered ruins of sacred edifices as places of resort, from the solitude and protection the character of such remains afford, owls have been considered by the superstitious as birds of darkness and ill-omen, and by some even as messengers of death." The little Italian owl, or *civetta*, is much prized, Mr. Waterton tells us, "by the gardeners of Italy, for its uncommon ability in destroying insects, snails, slugs, reptiles, and mice. There is scarcely an out-house in the gardens and vineyards of that country which is not tenanted by the *civetta*. It is often brought up tame from the nest; and in the month of September is sold for a dollar to sportsmen, who take it with them in their excursions through the country, to look for larks and other small birds. Perched on the top of a pole, it attracts their notice and draws them within the fatal range of gunshot by its most singular postures; for, standing bolt upright, it crouches incessantly, with its head somewhat inclined forwards, whilst it keeps its eyes fixed on the approaching object. This odd movement is peculiar to the *civetta* alone, and by it the birds of the neighbourhood are decoyed to their destruction. Hence its value to the ranging sportsman. Often and anon as the inhabitants of Rome pass through the bird-market at the Pantheon, they stop and look, and laugh at this pretty little captive owl, whilst it is performing its ridiculous gesticulations." The scops-eared owl is very nearly allied to this species, and, though it is most abundant in Italy, it is occasionally to be seen in Great Britain; and on the shores and islands of the Mediterranean it is very abundant; and Mr. Spence, the well-known entomologist, has thus recorded its summer habits in the *Magazine of*



SCOPS-EARED OWL.

*Natural History*:—"This owl, which in summer is very common in Italy, is remarkable for the constancy and regularity with which it utters its peculiar note or cry. It does not merely 'to the moon complain' occasionally, but keeps repeating its plaintive and monotonous cry of '*Kew, kew*' (whence its Florentine name of *Chiù*, pronounced almost exactly like the English letter Q), in the regular intervals of about two seconds, the livelong night; and till one is used to it nothing can well be more wearisome. Towards the end of April, 1830, one of these owls established itself in the large Jardin Anglais, behind the house where we resided at Florence; and, until our departure for Switzerland, in the beginning of June, I recollect but one or two instances in which it was not constantly to be heard, as if in spite to the nightingales which abounded there, from nightfall to midnight (and probably much later), whenever I chanced to be in the back part of the house, or took our friends to listen to it, and always with precisely the same unwearied cry, and the intervals between each as regular as the ticking of a pendulum."

At this gloomy season of the year every flower is valuable; but the Christmas rose, which generally appears in flower about this time, is valuable not only from the absence of other flowers, but for its own intrinsic merits. It is a large, handsome, cup-shaped flower, looking like a single rose, and being either white or a very pale pink; and though, in the open air, the delicate texture of its flowers is often injured by the frost, or melting snow which so frequently covers the ground at the dreary season when it appears, yet, when grown in a sheltered place, or when the weather chances to be mild, it is as ornamental as any of the flowers of summer. It is a species of hellebore, and its botanic name is *Helleborus niger* (or the black hellebore), from the black skin which covers its fleshy underground stem, or root, as it is commonly called, though there are attached to this fleshy substance abundance of the real or fibrous roots. The plant is used in medicine, but it is poisonous when taken to excess; and, in fact, its very name of hellebore is taken from two Greek words, signifying deadly food. There are several kinds of hellebore, but the Christmas rose is by far the most ornamental.

The fragrant coltsfoot (*Tussilago frutrans*) is another plant which flowers about Christmas; and it is not only ornamental, but very fragrant. All the kinds of coltsfoot



CHRISTMAS ROSE.

are considered efficacious in colds and coughs; and, in fact, the Latin name of the genus is derived from *tussis*, a cough.

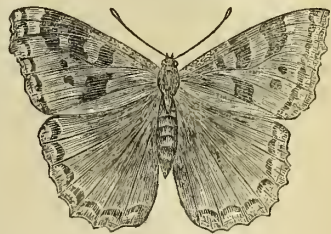
Among the few other plants in flower at this season may be mentioned the curious variety of hawthorn called the Glastonbury thorn, which is said always to flower exactly on Christmas Day. Of course, this is not the case; but it is a fact that the plant blossoms again in December, though it has ripe fruit on it from its previous blossoming at the ordinary season in May. The legend is, that, in the ancient times, Glastonbury was situated on an island called Avalon; the waters that surrounded it, and which consisted of a lake communicating with the sea, being now dried up, though where the lake formerly was is still marshy ground. Joseph of Arimathea is said to have come to Britain with his disciples, to preach the Gospel, in the year 36; and he having landed on the isle of Avalon, struck his stick into the ground, which immediately took root, budded, and blossomed, being on the Christmas Day; and, since that time, the plant has always budded and blossomed on Christmas Day. The Glastonbury thorns, which are now common in every part of England, are all taken from an original stock, still existing within the ruins of Glastonbury Abbey; but it is said that there is another in the neighbourhood, which is much older than the one growing in the ruins, and which blossoms about the same time.

In the New Forest there is an oak which sends forth its leaf-buds about the middle of December, and which, on Christmas Day, has frequently several leaves expanded. They do not, however, long remain, as the country people generally assemble on the Christmas morning and strip the tree of every leaf they can find. The tree is called the Cademan Oak, and it is said by some to be the identical tree against which the arrow of Tyrrael glanced when it killed William Rufus; as, in the account given by Camden of the accident, he expressly mentions the early vegetation of the tree which was the occasion of the accident. According to other authors, however, it appears that there is another tree in the Forest which vegetates at the same time as the Cademan Oak, and which is close to the monument of Rufus. There was, formerly, another very remarkable tree in the New Forest, from the root of which strange noises, like fearful groans, used to issue in the month of December, particularly when the weather was clear and frosty. The tree was a young and vigorous elm; and the groaning, which was never heard but in the depth of winter, was heard by thousands. It was observed, however, that the tree did not groan when the weather was wet, but only when it was clear and frosty. At length the owner of the tree, a gentleman of the name of Forbes, after trying several experiments, bored a hole in its trunk. "After this it never groaned. It was then rooted up, with a further view to make a discovery; but still nothing appeared which led to any investigation of the cause. It was, however, universally believed that there was no trick in the affair, but that some natural cause really existed, though never understood."

Almost all the insects which live through the winter are in a torpid state at this season, and most of the moths and butterflies are dead, having left their eggs secured in various ways, so that they may be enabled to bear the cold of winter, and be ready to be hatched in the spring. Thus, the eggs of the lackey-moth, to use the words of Messrs. Kirby and Spence, "are packed as closely as possible to each other, and the interstices are filled up with a tenacious gum, which soon hardens the whole into a solid mass, almost capable of resisting a penknife." The female of the gipsy-moth also crowds her eggs together as closely as she possibly can, and when she has formed them into an oval mass, she covers them with a warm coating of hairs plucked from her own body, which she makes so thick, and fixes on so firmly, as to render the covering equally impervious to cold and wet. Even the *Aphis* coats her eggs over so as to make them appear perfectly black; and the beetles generally bury theirs to a considerable depth in the ground, instinct teaching them that the frost, which destroys everything exposed to the atmospheric air, never penetrates more than a few inches into the ground. In some few cases moths hibernates, like beetles, in a perfect state, and the December Moth is found occasionally sticking, apparently lifeless, against the trunks of trees. The Herald Moth is also occasionally seen at this season, and it is so torpid that it will suffer itself to be taken in the hand without making any effort to escape. Even when a finger is put near it, it only moves its head and antennæ a little, without attempting to fly away. A moth of this species was observed by the Rev. Leonard Jenyns to remain in a torpid state upwards of seven months. The most remarkable insect, however, seen at this season, is the one known in the south of Scotland by the name of the Devil's Butterfly; and which, in various parts of England, is called the Witch's Butterfly; as it may be seen on the wing on fine sunny days during the whole of the winter. The true name of this butterfly is the small tortoise-shell (*Vanessa virtica*); and its caterpillars, which feed on the nettle, are nearly black, with four bright yellow stripes, two along the back and one on each side, the whole body being covered with fine branched spines. The pupa of this caterpillar is very curious, looking like a lady with an old-fashioned hood, and being always suspended by a thread. There appear to be at least two broods of this insect every year—one being hatched in June, and the other in the latter end of October. It is very common in the south of Europe, and particularly in Italy.

The common house-fly is subject to rather a singular disease at this season; and flies are often found sticking to the leaves of ivy and

other evergreens—the flies, though they appear to be alive, being quite dead, and adhering to the leaf by a kind of cottony mildew, which is, in fact, a peculiar sort of fungus. The Rev. L. Jenyns, mentioning this singular fact, adds, that it seems owing to the chill and dampness of an autumnal night coming on suddenly, as at this season the temperature of the air at sunset, especially if the sky be clear, falls rapidly. The Rev. M. J. Berkeley mentions that this fungus, no doubt, attacks the fly while living, though it is not fully developed till after death. The reason why it prevails in autumn, he adds, is that the dampness of the air at that season is favourable to the growth of all kinds of mould, and that the suddenness with which flies appear to be attacked with it is merely the rapid growth of the fungus, from the state of the atmosphere. Gold fish are frequently attacked at the beginning of winter with a white downy matter, similar to that found on flies, and which generally proves equally fatal. The nests of wasps may be sought for at this season and destroyed, as wasps are frequently found in them in a torpid state from the cold, and nearly every wasp that survives the winter will form a nest the following summer; the economy of wasps being different from that of bees, and each old female wasp forming a new colony of her own.



SMALL TORTOISE-SHELL BUTTERFLY.



A TABLE, SHOWING THE TIMES OF SUN-RISING AND SUN-SETTING, AND THE LENGTH OF THE DAY, AT ALL PLACES IN ENGLAND, SCOTLAND, IRELAND, AND WALES.

Month and Day.	Dartmouth, Plymouth.			Dover, Southampton.			Bangor, Mersey.			Haverhill, Northampton.			Lowestoft, Yarmouth.			Conner, Wells, Lynn.			Grimsby, Gainsborough.		
	Length of Day.			Length of Day.			Length of Day.			Length of Day.			Length of Day.			Length of Day.			Length of Day.		
	Rises.	Sets.	h. m.	Rises.	Sets.	h. m.	Rises.	Sets.	h. m.	Rises.	Sets.	h. m.	Rises.	Sets.	h. m.	Rises.	Sets.	h. m.	Rises.	Sets.	h. m.
January	1 1 1	4 5 5	8 2	1 1 1	4 5 5	8 2	1 1 1	4 5 5	8 2	1 1 1	4 5 5	8 2	1 1 1	4 5 5	8 2	1 1 1	4 5 5	8 2	1 1 1	4 5 5	8 2
11	7 58	4 18	8 20	8 0	4 16	8 15	8 5	4 18	8 10	7 56	4 13	8 10	8 5	4 18	8 10	7 56	4 13	8 10	8 5	4 18	8 10
21	7 51	4 33	8 32	7 53	4 31	8 38	7 56	4 28	8 34	7 42	4 47	9 5	7 42	4 47	9 5	7 42	4 47	9 5	7 42	4 47	9 5
February	1 7 37	4 51	9 14	7 39	4 49	8 11	7 40	4 48	9 8	7 23	5 6	9 44	7 23	5 6	9 44	7 23	5 6	9 44	7 23	5 6	9 44
11	7 20	5 9	9 49	7 24	5 7	9 26	7 25	5 7	9 26	7 25	5 7	9 26	7 25	5 7	9 26	7 25	5 7	9 26	7 25	5 7	9 26
21	7 2	5 26	10 24	7 3	5 25	10 27	7 5	5 23	10 18	7 6	5 22	10 16	7 6	5 22	10 16	7 6	5 22	10 16	7 6	5 22	10 16
March	1 6 46	5 40	10 54	6 46	5 40	10 53	6 47	5 39	10 52	6 48	5 40	10 52	6 48	5 40	10 52	6 48	5 40	10 52	6 48	5 40	10 52
11	6 25	5 55	11 30	6 25	5 55	11 30	6 25	5 55	11 30	6 25	5 55	11 30	6 25	5 55	11 30	6 25	5 55	11 30	6 25	5 55	11 30
21	6 2	6 12	12 10	6 2	6 12	12 10	6 2	6 12	12 10	6 2	6 12	12 10	6 2	6 12	12 10	6 2	6 12	12 10	6 2	6 12	12 10
April	1 5 39	6 29	12 50	5 39	6 29	12 50	5 38	6 29	12 51	5 38	6 30	12 52	5 38	6 30	12 52	5 38	6 30	12 52	5 38	6 30	12 52
11	5 18	6 44	13 26	5 18	6 44	13 27	5 17	6 45	13 28	5 16	6 46	13 30	5 16	6 46	13 30	5 16	6 46	13 30	5 16	6 46	13 30
21	4 58	7 0	14 2	4 57	7 1	14 4	4 56	7 2	14 6	4 55	7 3	14 9	4 55	7 3	14 9	4 55	7 3	14 9	4 55	7 3	14 9
May	1 4 39	7 15	14 36	4 40	7 17	14 39	4 36	7 18	14 42	4 35	7 19	14 45	4 35	7 19	14 45	4 35	7 19	14 45	4 35	7 19	14 45
11	4 22	7 32	15 8	4 20	7 32	15 11	4 19	7 33	15 14	4 17	7 35	15 18	4 17	7 35	15 18	4 17	7 35	15 18	4 17	7 35	15 18
21	4 7	7 44	15 36	4 6	7 46	15 40	4 6	7 48	15 44	4 5	7 50	15 48	4 5	7 50	15 48	4 5	7 50	15 48	4 5	7 50	15 48
June	1 3 58	7 56	15 58	3 55	7 58	16 4	3 53	8 1	16 8	3 51	8 4	16 13	3 48	8 6	16 18	3 46	8 8	16 24	3 43	8 11	16 28
11	3 52	8 6	16 14	3 50	8 9	16 19	3 47	8 11	16 24	3 45	8 14	16 29	3 42	8 16	16 34	3 39	8 18	16 39	3 37	8 21	16 44
21	3 52	8 10	16 18	3 50	8 13	16 23	3 47	8 15	16 28	3 44	8 18	16 34	3 41	8 21	16 40	3 38	8 24	16 45	3 35	8 27	16 50
July	1 3 56	8 10	16 14	3 53	8 12	16 19	3 51	8 15	16 24	3 49	8 18	16 29	3 46	8 20	16 34	3 43	8 23	16 40	3 40	8 26	16 46
11	4 5	8 5	16 0	4 3	8 8	16 5	4 0	8 10	16 10	3 58	8 13	16 15	3 55	8 15	16 20	3 52	8 17	16 25	3 48	8 20	16 30
21	4 16	7 56	15 40	4 14	7 58	15 44	4 12	8 0	15 48	4 10	8 4	15 52	4 8	8 8	15 56	4 7	8 10	16 0	4 6	8 12	16 04
August	1 4 31	7 41	15 10	4 29	7 43	15 13	4 28	7 44	15 16	4 26	7 46	15 20	4 24	7 48	15 24	4 22	7 50	15 28	4 20	7 52	15 32
11	4 5	7 25	14 6	4 44	7 26	14 43	4 42	7 28	14 46	4 40	7 30	14 50	4 37	7 33	14 53	4 35	7 35	14 56	4 33	7 37	14 59
21	5 0	7 6	14 6	4 59	7 7	14 8	4 58	7 8	14 10	4 57	7 9	14 12	4 55	7 11	14 15	4 54	7 12	14 18	4 52	7 14	14 21
Sept.	1 5 17	6 43	13 26	5 15	6 45	13 29	5 14	6 46	13 32	5 13	6 47	13 34	5 12	6 48	13 36	5 11	6 49	13 38	5 10	6 50	13 40
11	5 32	6 21	12 14	5 30	6 21	12 19	5 28	6 22	12 20	5 26	6 23	12 25	5 24	6 24	12 30	5 22	6 26	12 35	5 20	6 28	12 40
21	5 46	6 0	12 14	5 46	6 0	12 14	5 46	6 0	12 14	5 46	6 0	12 14	5 46	6 0	12 14	5 46	6 0	12 14	5 46	6 0	12 14
October	1 6 2	5 33	11 36	6 2	5 38	11 36	6 2	5 38	11 36	6 2	5 38	11 36	6 2	5 38	11 36	6 2	5 38	11 36	6 2	5 38	11 36
11	6 17	5 17	11 0	6 17	5 17	10 59	6 18	5 16	10 58	6 19	5 15	10 56	6 20	5 14	10 54	6 21	5 13	10 52	6 22	5 12	10 50
21	6 34	4 56	10 22	6 36	4 55	10 20	6 36	4 54	10 18	6 37	4 53	10 16	6 39	4 52	10 13	6 40	4 51	10 11	6 41	4 50	10 9
Novem.	1 6 52	4 36	9 41	6 54	4 35	9 41	6 55	4 33	9 38	6 56	4 32	9 36	6 57	4 31	9 34	6 59	4 29	9 30	7 0	4 27	9 25
11	7 9	4 19	9 10	7 10	4 18	9 7	7 12	4 16	9 4	7 14	4 14	9 2	7 15	4 13	9 0	7 17	4 11	8 58	7 19	4 9	8 45
21	7 25	4 7	8 42	7 27	4 5	8 39	7 29	4 3	8 34	7 31	4 2	8 31	7 33	3 58	8 26	7 35	3 56	8 20	7 38	3 53	8 15
Decem.	1 7 38	4 0	8 22	7 40	3 58	8 17	7 43	3 55	8 12	7 45	3 53	8 8	7 47	3 51	8 4	7 49	3 48	7 59	7 52	3 46	7 54
11	7 50	3 56	8 6	7 52	3 54	8 2	7 55	3 51	7 56	7 57	3 48	7 51	7 58	3 46	7 46	7 59	3 45	7 40	8 0	3 44	7 37
21	8 3	3 53	8 0	8 0	3 55	7 55	8 3	3 53	7 50	8 6	3 50	7 44	8 9	3 48	7 40	8 11	3 45	7 34	8 14	3 42	7 28
31	8 1	4 5	8 4	8 3	4 3	8 0	8 6	4 0	7 53	8 9	3 57	7 49	8 11	3 55	7 44	8 14	3 52	7 38	8 17	3 46	7 25

The times of Sun-rising and Sun-setting, and the Length of the Day, at all those Towns and Villages which are not mentioned at the head of this Table, will be the same as those of that Town whose name is mentioned, and which is situated the nearest to them. The Numbers in this Table will answer for many Years.



A TABLE, SHOWING THE TIMES OF SUN-RISE AND SUN-SETTING, AND THE LENGTH OF THE DAY, AT ALL PLACES IN ENGLAND, SCOTLAND, IRELAND, AND WALES—(Continued).

Month and Day.	Sunderland, Shields, Newcastle, Carlisle, Amman, Dumfries, Wigtown, Kirkcubright, Carrickfergus, Antrim, Londonderry.			Alnwick, Rothbury, Jedburgh, Ayr, Selkirk, Irvine.			Derwick, Hadlington, Edinburgh, Linlithgow, Glasgow, Stirling, Dunbar, Leith, Greenock.			Forfar, Dundee, Perth, Comrie, Arbroath.			Aberdeen, Invercherry, Urr, Kincardine, Kell, Laggan.			Pithead, Inverness, Banff, Cromarty, Elgin, Applecross.			Dornock, Portenlock, Tain, Dunrobin, Dunclamin.			Wick, Thurso.			Orkney Islands.		
	Sun.		Length of Day.	Sun.		Length of Day.	Sun.		Length of Day.	Sun.		Length of Day.	Sun.		Length of Day.	Sun.		Length of Day.	Sun.		Length of Day.	Sun.		Length of Day.	Sun.		Length of Day.
	Rises.	Sets.		Rises.	Sets.		Rises.	Sets.		Rises.	Sets.		Rises.	Sets.		Rises.	Sets.		Rises.	Sets.		Rises.	Sets.		Rises.	Sets.	
January	1 8 25	3 43	7 18	1 8 25	3 43	7 18	1 8 25	3 43	7 18	1 8 25	3 43	7 18	1 8 25	3 43	7 18	1 8 25	3 43	7 18	1 8 25	3 43	7 18	1 8 25	3 43	7 18	1 8 25	3 43	7 18
February	1 7 52	4 35	8 43	1 7 52	4 35	8 43	1 7 52	4 35	8 43	1 7 52	4 35	8 43	1 7 52	4 35	8 43	1 7 52	4 35	8 43	1 7 52	4 35	8 43	1 7 52	4 35	8 43	1 7 52	4 35	8 43
March	1 6 52	5 34	10 42	1 6 52	5 34	10 42	1 6 52	5 34	10 42	1 6 52	5 34	10 42	1 6 52	5 34	10 42	1 6 52	5 34	10 42	1 6 52	5 34	10 42	1 6 52	5 34	10 42	1 6 52	5 34	10 42
April	1 5 36	6 32	12 56	1 5 36	6 32	12 56	1 5 36	6 32	12 56	1 5 36	6 32	12 56	1 5 36	6 32	12 56	1 5 36	6 32	12 56	1 5 36	6 32	12 56	1 5 36	6 32	12 56	1 5 36	6 32	12 56
May	1 4 25	7 29	15 4	1 4 25	7 29	15 4	1 4 25	7 29	15 4	1 4 25	7 29	15 4	1 4 25	7 29	15 4	1 4 25	7 29	15 4	1 4 25	7 29	15 4	1 4 25	7 29	15 4	1 4 25	7 29	15 4
June	1 3 34	8 20	16 46	1 3 34	8 20	16 46	1 3 34	8 20	16 46	1 3 34	8 20	16 46	1 3 34	8 20	16 46	1 3 34	8 20	16 46	1 3 34	8 20	16 46	1 3 34	8 20	16 46	1 3 34	8 20	16 46
July	1 3 31	8 25	17 4	1 3 31	8 25	17 4	1 3 31	8 25	17 4	1 3 31	8 25	17 4	1 3 31	8 25	17 4	1 3 31	8 25	17 4	1 3 31	8 25	17 4	1 3 31	8 25	17 4	1 3 31	8 25	17 4
August	1 4 12	7 59	15 48	1 4 12	7 59	15 48	1 4 12	7 59	15 48	1 4 12	7 59	15 48	1 4 12	7 59	15 48	1 4 12	7 59	15 48	1 4 12	7 59	15 48	1 4 12	7 59	15 48	1 4 12	7 59	15 48
September	1 5 9	6 51	13 42	1 5 9	6 51	13 42	1 5 9	6 51	13 42	1 5 9	6 51	13 42	1 5 9	6 51	13 42	1 5 9	6 51	13 42	1 5 9	6 51	13 42	1 5 9	6 51	13 42	1 5 9	6 51	13 42
October	1 6 4	5 36	11 32	1 6 4	5 36	11 32	1 6 4	5 36	11 32	1 6 4	5 36	11 32	1 6 4	5 36	11 32	1 6 4	5 36	11 32	1 6 4	5 36	11 32	1 6 4	5 36	11 32	1 6 4	5 36	11 32
November	1 7 5	4 24	9 19	1 7 5	4 24	9 19	1 7 5	4 24	9 19	1 7 5	4 24	9 19	1 7 5	4 24	9 19	1 7 5	4 24	9 19	1 7 5	4 24	9 19	1 7 5	4 24	9 19	1 7 5	4 24	9 19
December	1 8 0	3 38	7 38	1 8 0	3 38	7 38	1 8 0	3 38	7 38	1 8 0	3 38	7 38	1 8 0	3 38	7 38	1 8 0	3 38	7 38	1 8 0	3 38	7 38	1 8 0	3 38	7 38	1 8 0	3 38	7 38

The times of Sun-rising and Sun-setting, and the Length of the Day, at all those Towns and Villages which are not mentioned at the head of this Table, will be the same as those of that Town whose name is mentioned, and which is situated the nearest to them. The Numbers in this Table will answer for many Years.



# APPEARANCE OF THE HEAVENS

ON JANUARY 1, 1850, AT 8H. P.M., AS SEEN NEAR LONDON.

## EAST OF THE MERIDIAN.

N.E. by N.—The Great Bear, 35° high; the Pointers about 32° high.  
N.E.—Leo Minor, 15° high; above which are the fore-legs of the Great Bear.  
N.E. by E.—Lynx, 45° high.  
E.—The Crab, 20° high; Pollux, 34°; Castor, 38°; Beta Aurigæ, 62°; and Capella, 67° high.  
E. by S.—Procyon, 17° high.  
S.E. by E.—Sirius, 6° high; Alpha Orionis, 33° high; Mars, 42°; and Beta Tauri, 44° high.  
S.E.—The three stars in the belt of Orion, 27°; Gamma Orionis, 36° high; above which is the Bull.  
S.E. by S.—Rigel, 24° high; Aldebaran, 50° high; above which, the legs of Perseus.  
S. by E.—The Pleiades, 61° high.

## ON THE MERIDIAN.

A little above the north horizon is a part of Draco; Ursa Minor, Polaris; above which, Camelopardalus; Perseus, near the zenith; Alpha Persei, 4° east of the meridian; and Beta Persei, 2° west; below these, the Fly, the hinder-part of the Ram, the head of the Whale; and Alpha Ceti, 42° high.

## WEST OF THE MERIDIAN.

S.S.W.—Alpha Arietis, 61° high; and Cetus, 23° high.  
S.W. by S.—Hinder part of the Whale, 15° high; and Gamma Andromedæ, 15° from the zenith.  
S.W.—Saturn, 27° high.  
S.W. by W.—Gamma Pegasi, 40° high; and Beta Andromedæ, 63° high.  
W.S.W.—Alpha Andromedæ, 53° high; and Alpha Pegasi, 32° high.  
W.—Beta Pegasi, 42° high; Andromeda, 20° from the zenith.  
W. by N.—Delphinus.  
N.W. by W.—Alpha Cygni, 33° high; and Alpha Lyreæ, N.W. 10° high.  
N.N.W.—Beta and Gamma Draconis, 18° high.

# APPEARANCE OF THE HEAVENS ON FEBRUARY 1, 1850, AT 8H. P.M.

## EAST OF THE MERIDIAN.

N.N.E.—The Northern Crown rising.  
N.E. by N.—The tail, hack, and the hinder part of the Great Bear; and near the zenith the head of the Lynx; Eta of the Great Bear, 20°; and Zeta, 26° high.  
Near N.E.—Delta of the Great Bear, 34°; Alpha, 44°; Gamma, 34°; and Beta, 41° high.  
E.N.E.—Leo Minor, 30°; and Lynx, 60° high.  
E.—Regulus, 19° high; above which, Leo; and, higher up, the legs of the Lynx.  
E.S.E.—Hydra, 20°; Crab, 45°; Gemini, 53°; Pollux, 53°; and Castor, 57° high.  
S.E.—Procyon, 35° high.  
S.S.E.—Sirius, 20° high.  
S. by E.—Alpha Orionis, 44° high.

## ON OR NEAR THE MERIDIAN.

Starting from the N., at a little west of the meridian Beta and Gamma Draconis, 15° high; above which, the Little Bear, Polaris, Camelopardalus, Auriga in zenith; south of the zenith, Taurus; lower, and a little west, Orion; still lower, the Hare, at the height of 20°; near the meridian, Rigel, 30°; three stars in Orion, 31°; Gamma Orionis, 44°; Aldebaran, a little west of meridian, 54°; Mars, a little east of the meridian, 64° high; Beta Tauri, near Mars, 66° high; Capella is near the zenith.

## WEST OF THE MERIDIAN.

Near S.W. by S.—Alpha Ceti, 35°; and the Pleiades, 58° high.  
S.W.—Cetus, 15° high; above which, the Ram; higher still, the Fly; and Perseus near the zenith.  
W.S.W.—Saturn, 9° high.  
W. by S.—Gamma Pegasi, 22°; and Gamma Andromedæ, 58° high.  
W.—Alpha Andromedæ, 31°; and Beta Andromedæ, 46° high.  
Near W. by N.—Alpha Pegasi, 11° high.  
Near W.N.W.—Beta Pegasi, 23° high.  
Near N.N.W.—Alpha Cassiopeia, 51°, and Beta Cassiopeia, 48° high.  
N.W. by N.—Alpha Cygni, 16° high; and Alpha Lyreæ is near the horizon in the N.N.W.

# APPEARANCE OF THE HEAVENS ON MARCH 1, 1850, AT 9H. P.M.

## EAST OF THE MERIDIAN.

N. by E.—Alpha Lyreæ rising.  
N.N.E.—Gamma Draconis, 15°; Beta Draconis, 18°; and the Little Bear, 45° high.  
Near N.E.—The Northern Crown rising.  
N.E. by E.—Boötes, 17° high; above which, parts of the Great Bear, Eta, Zeta, Epsilon, Delta, and Gamma of which are 36°, 42°, 46°, 52°, and 54° high, respectively; higher still, Beta, 61° high; and Alpha, N. of Beta, 61° high.  
Near E.N.E.—Arcturus, 11°; in the east the Virgin rising; above which Coma Berenices; and higher still, Leo Minor.  
Near S.E.—Beta Leonis, 32° high; Jupiter, 16° high.  
Near S.E.—Regulus, 41°; and Gamma Leonis, 48° high.  
S.S.E.—Alpha Hydreæ, 27° high.

## ON THE MERIDIAN.

The body of the Unicorn, 35° high; above which is the Little Dog, a little W. of meridian is Procyon, 44° high; above which Gemini, with Pollux near the meridian, 67° high, and Castor a little more West, 70° high; between this point and the zenith is the Lynx; N. of the zenith is the head of the Great Bear; and near the N. horizon is the body of the Swan.

## WEST OF THE MERIDIAN.

Near S.S.W.—Sirius, 20° high; a little more W. Beta Canis Majoris, 18°.  
S.W. nearly—Rigel, 21°; three stars in Orion, 30°; Gamma Orionis, 35°; Alpha Orionis, 39° high; and Mars, 57° high.  
W.S.W.—Aldebaran, 36°; and Beta Aurigæ, 69° high.  
W. by S.—Alpha Ceti, 12°; the Pleiades, 36°; and Capella, 64° high.  
W. by N.—Alpha Arietis, 19°; and Beta Persei, 42° high.  
N.W. by N.—Alpha Andromedæ, 62°; Beta Andromedæ, 19°; Gamma Andromedæ, 32°; Gamma Pegasi, 43°; and Beta Cassiopeia, 30° high.

# APPEARANCE OF THE HEAVENS ON APRIL 1, 1850, AT 9H. P.M.

## EAST OF THE MERIDIAN.

N. by E.—Alpha Cygni, 5°.  
N.E. by N.—The Harp rising; Alpha Lyreæ, 8° high; above which, a little to the left, is Gamma Draconis, 24°; and Beta Draconis, 26°; higher up, the Little Bear.  
N.E.—Alpha Draconis, 55° high.  
N.E. by E.—Zeta, Epsilon, Delta, Gamma, and Beta of the Great Bear, 57°, 61°, 69°, 71°, and 79° high, respectively.  
Near N.E. by E.—The Northern Crown, 25° high.  
E.—Alpha Serpentis, 5°; and Arcturus, 30° high.  
S.E. by E.—Spica Virginis, 11°.  
S.E.—Beta Leonis, 47° high.  
S.E. by S.—Jupiter, 52° high.

## ON AND NEAR THE MERIDIAN.

Alpha Hydreæ, 31°; Regulus, 41°; higher up, the head of the Lion, the fore-legs and body of the Great Bear, with the Pointers, about 10° east of the meridian; and below Polaris is Cepheus.

## WEST OF THE MERIDIAN.

S.W.—Sirius, 11°; Procyon, 38° high; above which, the Crab.  
Near W.S.W.—Rigel, 6°; Orion's belt, 15°; a little west, Gamma Orionis, 19°; Alpha Orionis, 25°; Gamma Geminorum, 38°; Castor, 58°; a little west, Pollux, 56°; higher up, the body of the Lynx, and the head of the Great Bear: Mars, 47° high.  
W.—Aldebaran, 19°; Beta Tauri, 36°.  
W. by N.—The Pleiades, 18°; Delta Aurigæ, 53°; and Alpha Arietis, setting.  
W.N.W.—Capella, 46° high.  
N.W. by W.—Beta Persei, 25° high; a little to the north, Alpha Persei, 33° high.  
Near N.W.—Beta Andromedæ, 7°; Gamma Andromedæ, 18°; and N.N.W., 25° high, Cassiopeia.

# APPEARANCE OF THE HEAVENS ON MAY 1, 1850, AT 10H. P.M.

## EAST OF THE MERIDIAN.

N. by E.—Beta Cassiopeia, 20° high.  
N.E.—Alpha Cygni, 20° high.  
N.E. by E.—Gamma Draconis, 43° high; and Beta Draconis, 47° high.  
E.N.E.—Alpha Lyreæ, 30° high.  
E. by S.—Alpha Ophiuchi, 20°; and Alpha Herculis, 25° high.  
E.S.E.—The Northern Crown, 40° high.  
S.E. by E.—Alpha Serpentis, 34° high.  
S.E. by S.—Beta Libræ, 22°; and Arcturus, 54° high.  
S. by E.—Spica Virginis, 28° high.

## ON AND NEAR THE MERIDIAN.

Cassiopeia; above which the middle star in the tail of the Bear, with Zeta 5° to the E., Delta 2° to the W., and Alpha, Beta, and Gamma of the Great Bear within 13° W. of the Meridian, and all near the zenith.

## WEST OF THE MERIDIAN.

S.S.W.—Beta Leonis, 43°.  
Near S.W.—Alpha Hydreæ, 17°; Regulus, 40°; Gamma Leonis, 49° high; and Jupiter, 42° high.  
W.—Procyon, 70° high; Mars, 29° high.  
W. by N.—Gamma Geminorum, 12°; Pollux, 32°; and Castor, 32° high.  
N.W. by W.—Beta Tauri, 10°.  
N.W.—Capella, 23°; Beta Aurigæ, 27°; above these, and near the zenith, the Great Bear.  
Near N.N.W.—Beta Persei, 6°; and Alpha Persei, 16° high.

# APPEARANCE OF THE HEAVENS ON JUNE 1, 1850, AT 10H. P.M.

## EAST OF THE MERIDIAN.

N.N.E.—Beta Cassiopeia, 24° high.  
N.E. by E.—Alpha Cygni, 35° high.  
E.N.E.—Gamma Draconis, 60°; and Beta Draconis, 64° high.  
E. by N.—Alpha Lyreæ, 48°.  
E. by S.—Alpha Aquilæ, 15° high.  
Near S.E.—Alpha Ophiuchi, 40°; and Alpha Herculis, 44° high.  
S.S.E.—Northern Crown, 65° high.

## ON OR NEAR THE MERIDIAN.

Perseus near the north horizon, Alpha Draconis a little north of zenith, Arcturus 58° high, and 10° W. of the meridian; and Alpha Libræ near the meridian, at the height of 24°.

## WEST OF THE MERIDIAN.

S.S.W.—Spica Virginis, 25° high.  
S.W. by W.—Beta Leonis, 39°; and Jupiter, 28° high.  
W. by S.—Regulus, 23° high; and Gamma Leonis, 30° high.  
W. by N.—Pollux, 12° high; Castor, 13°; and Mars, 18° high.  
N.W. by N.—Beta Aurigæ, 14° high; Venus setting.  
N.N.W.—Capella, 12° high; above which is the Great Bear.

# APPEARANCE OF THE HEAVENS ON JULY 1, 1850, AT 10H. P.M.

## EAST OF THE MERIDIAN.

N. by E.—Alpha Persei, 12° high.  
N.E. by N.—Gamma Andromedæ, 10°; and Beta Cassiopeia, 33° high.  
N.E. by E.—Alpha Andromedæ, 10° high.  
E.N.E.—Beta Pegasi, 19° high.  
E. by N.—Alpha Pegasi, 9°; and Alpha Cygni, 51° high.  
E. and near the Zenith.—Gamma and Beta Draconis.  
S.E. by E.—Alpha Aquilæ, 34°; and Alpha Lyreæ, 69° high.  
S. by E.—Alpha Ophiuchi, 41° high; and Alpha Herculis, 49° high.

## ON OR NEAR THE MERIDIAN.

Capella near the horizon, and due N.; and Antares 4° W. of the meridian, and 12° above the S. horizon.

## WEST OF THE MERIDIAN.

S. by W.—Beta Scorpis, 18°.  
S.W. by S.—Alpha Libræ, 18°; Beta Libræ, 26°; and Alpha Serpentis, 45° high; the Northern Crown, 65° high.  
S.W. by W.—Spica Virginis, 14°; and Arcturus, 46° high.  
W.—Beta Leonis, 22° high; Jupiter, 10° high.  
W. by N.—Regulus and Mars nearly setting.  
N.W.—Great Bear, 48° high; and Castor is setting near W. by N.  
N.W. by N.—Venus setting.



# THE ILLUSTRATED LONDON ALMANACK FOR 1850.

## APPEARANCE OF THE HEAVENS ON AUGUST 1, 1850, AT 10H. P.M.

### EAST OF THE MERIDIAN.

Near N. by E.—Beta Aurigæ, 7°; and Capella, 9° high.  
Near N.E. by N.—Alpha Persei, 20°; and Beta Persei, 13° high.  
Near N.E.—Gamma Andromedæ, 21°; and Beta Cassiopeæ, 45° high.  
N.E. by E.—Alpha Arietis rising.  
E.N.E.—Beta Andromedæ, 22° high.  
E. by N.—Alpha Andromedæ, 26° high; Saturn will rise within a few minutes.  
E.—Gamma Pegasi, 16°; Beta Pegasi, 36°; and Alpha Cygni, 70° high.  
E. by S.—Alpha Pegasi, 26° high.  
S.S.E.—Alpha Aquilæ, 45° high.

### ON OR NEAR THE MERIDIAN.

The Lynx, near the north horizon; Draco, near the zenith; Lyra south of the zenith; Alpha Lyrae being on the meridian: near the zenith, and 5° W. of the meridian, is Gamma Draconis; and 9° W. is Beta Draconis.

### WEST OF THE MERIDIAN.

S.S.W.—Alpha Ophiuchi, 39°; Alpha Herculis, 40° high.  
S.W. by S.—Antares, 7°; a little to the right is Beta Scorpil, 10° high.  
S.W. by W.—Alpha Libræ, 6°; and Beta Libræ, 16° high.  
W. by S.—Arcturus, 32° high; the Northern Crown, 43° high.  
N.W.—The stars in the tail of the Great Bear, 40° high.  
N.W. by N.—The Pointers, 35° high.

## APPEARANCE OF THE HEAVENS ON SEPTEMBER 1, 1850, AT 9H. P.M.

### EAST OF THE MERIDIAN.

N.N.E.—Beta Aurigæ, 9° high; to the right, Capella, 12° high.  
N.E.—Alpha Persei, 26° high.  
E.N.E.—Alpha Arietis, 14°; Beta Andromedæ, 32° high.  
E. by N.—Beta Persei, 20°; Beta Cassiopeæ, 53° high.  
E.—Saturn, 5° high.  
E. by S.—Gamma Pegasi, 26°; Beta Pegasi, 36°; and Alpha Pegasi, 37° high.

### ON OR NEAR THE MERIDIAN.

Body of the Lynx, Polaris, a little S. of the zenith; and 10° E. of the meridian, Alpha Cygni; 13° W. of the meridian, Alpha Lyrae; Alpha Aquilæ, on the meridian, 47° above the southern horizon.

### WEST OF THE MERIDIAN.

S.W.—Alpha Herculis, 42°; Alpha Ophiuchi, 43°; and Alpha Lyrae, 71° high.  
W.S.W.—Beta Libræ, 7°; and Alpha Serpentis, 23° high.  
W.—The Northern Crown, 42°; Beta Draconis, 72°; and Gamma Draconis, 74° high.  
W. by N.—Arcturus, 20° high.  
N.W. by N.—The stars in the tail of the Great Bear, 33° high.  
N.N.W.—The Pointers, 30° high.

## APPEARANCE OF THE HEAVENS ON OCTOBER 1, 1850, AT 9H. P.M.

### EAST OF THE MERIDIAN.

N.E. by N.—Castor rising.  
Near N.E.—Capella, 26°; and Beta Aurigæ, 20° high.  
Between E. by N. and E.N.E.—Aldebaran, 7°; Beta Persei, 38°; and Alpha Cassiopeæ, 64° high.  
Near E. by N.—The Pleiades, 18° high; and Gamma Andromedæ, 46° high.  
E. by S.—Alpha Ceti, 10°; Alpha Arietis, 33°; Beta Andromedæ, 51° high.  
E.S.E.—Alpha Andromedæ, 55° high.  
S.E. by E.—Saturn, 25° high; and Gamma Pegasi, 43° high. These four stars form a square, called the square of Pegasus.  
S.E. by S.—Beta Pegasi, 62° high.  
S.S.E.—Alpha Pegasi, 51° high.

### ON OR NEAR THE MERIDIAN.

The head and fore part of the Great Bear, on the north meridian. A little west of the meridian are the Pointers, and more west are Gamma and Delta of the Great Bear; and still more west, the three stars in the tail. Above Polaris is Cepheus; east of which is Cassiopeia; a little south of the zenith, and 15° west of the meridian, is the body of the Swan, Alpha Cygni being about 10° from the meridian: Aquarius is situated a little south of the Equator.

### WEST OF THE MERIDIAN.

S.S.W.—The four stars forming the rhomboidal figure, called Delphinus, 50° high.  
S.W. by S.—Alpha Aquilæ, 42° high.  
W. by N.—Alpha Lyrae, 56°; and Alpha Cygni, 77° high.  
W.N.W.—The Northern Crown, 15° high; Beta and Gamma Draconis, 53° high.  
N.W. by W.—Arcturus, setting.  
N.N.W.—The tail of the Bear, 20° high.

## APPEARANCE OF THE HEAVENS ON NOVEMBER 1, 1850, AT 8H. P.M.

### EAST OF THE MERIDIAN.

N. by E.—The head of the Great Bear, 20° high.  
N.E. by N.—Castor, 5° high.  
N.E. by E.—Beta Aurigæ, 25°; Capella, 32° high.  
E.N.E.—Alpha Persei, 47° high.  
E.—Aldebaran, 15°; Pleiades, 29°; Gamma Andromedæ, 58° high.  
E.S.E.—Alpha Ceti, 34°; Alpha Arietis, 45°; Beta Andromedæ, 61° high.  
S.E.—Saturn, 34°; Alpha Andromedæ, 65°; and Gamma Pegasi 50° high, being the eastern pair of stars forming the square of Pegasus.

### ON OR NEAR THE MERIDIAN.

The Pointers nearly on the meridian below Polaris, with Gamma and Delta of the Great Bear about 10° west of the meridian; Cepheus is situated between Polaris and the zenith. Within a few degrees east of the meridian is Beta Pegasi, 64° high; both Alpha Pegasi and Fomalhaut are near the meridian—the former is 52°, and the latter is 8° high.

### WEST OF THE MERIDIAN.

S.W.—Delphinus, 45° high.  
S.W. by W.—Alpha Aquilæ, 33° high.  
W.—Alpha Cygni, 67°; Alpha Ophiuchi, 16° high.  
W. by N.—Alpha Lyrae, 41°; and Alpha Herculis, 14° high.  
N.W. by N.—The Northern Crown, 14°; and Gamma and Beta Draconis, 14° high.  
N.N.W.—The tail of the Great Bear, 20° high.

## APPEARANCE OF THE HEAVENS ON DECEMBER 1, 1850, AT 8H. P.M.

### EAST OF THE MERIDIAN.

N. by E.—Gamma and Delta of the Great Bear, 16° and 19° high respectively.  
N.N.E.—Beta and Alpha of the Great Bear, 20° and 25° high respectively.  
N.E.—The Lynx, 25°; and higher up, the legs of Camelopardalis.  
N.E. by E.—Pollux, 12°; and Castor, 17° high.  
E.N.E.—Beta Aurigæ, 40°; Capella, 46°; and higher up, Perseus.  
E.—Alpha Orionis, 13° high; and Medusa's Head, 62° high.  
E. by S.—The three Stars in a straight line, and at equal distances from each other, forming the belt of Orion, 10° high; Aldebaran, 32° high.  
E.S.E.—The Pleiades, 46° high; Gamma Andromedæ, 73° high.  
S.E.—Alpha Ceti, 37°; and Alpha Arietis, 57° high.

### ON OR NEAR THE MERIDIAN.

Under the Pole Star is the tail of the Great Bear; above Polaris is Cassiopeia; a little south of the zenith is Andromeda, Beta Andromedæ being almost 5° east of the meridian. Saturn is near the meridian, being 5° east of it; at the altitude of 42°; and near the south horizon is the tail of Cetus.

### WEST OF THE MERIDIAN.

S. by W.—Gamma Pegasi, 52°; and Alpha Andromedæ, 65° high.  
S.W. by S.—Alpha Pegasi, 49° high.  
S.W.—Beta Pegasi, 60° high.  
W. by S.—Delphinus, 30° high; and near this point, at 17° high, is Alpha Aquilæ.  
W. by N.—Alpha Cygni, 51° high.  
N.W. by W.—Alpha Lyrae, 30° high.  
N.W.—Beta Draconis, 31° high; Gamma Draconis, 33° high.  
N.W. by N.—The Northern Crown, setting.

The names and relative situations of the principal constellations and stars are given in the preceding description of the heavens at a convenient time on the first day of every month, and very great facilities are thus given to the young astronomer to learn them.

The altitude of the constellation, star, or planet is to be understood as measured in angular measure, upon a vertical circle, above that point in the horizon which an arc of a circle drawn from the zenith (the point immediately overhead), and passing through or near the objects named, touches the horizon. The measure of this arc, or the angular distance from the zenith to the horizon is 90°; therefore, as all the altitudes are expressed in angular measure, that is, in degrees, whose symbol is °, it will be readily seen that if an object be mentioned as being 10° high, it is above the horizon by one-ninth part of the whole distance from the horizon to the zenith; if 30°, it would be one-third part; if 45°, it would be situated midway between the horizon and zenith.

For any day in the month the same description will apply for the stars, and for the planets nearly; only it will correspond to a time earlier each day by 3 minutes and 56 seconds (4 minutes nearly). Thus, in every month, the description will be the same as on the 1st day of that month.

	Earlier than the Time on the 1st.			Earlier than the Time on the 1st.		
	H.	M.	S.	H.	M.	S.
On the 2nd day, at ..	..	0	3 56	On the 17th day, at ..	..	1 2 56
3rd .. ..	..	0	7 52	18th .. ..	..	1 6 52
4th .. ..	..	0	11 48	19th .. ..	..	1 10 48
5th .. ..	..	0	15 44	20th .. ..	..	1 14 44
6th .. ..	..	0	19 40	21st .. ..	..	1 18 40
7th .. ..	..	0	23 36	22nd .. ..	..	1 22 36
8th .. ..	..	0	27 32	23rd .. ..	..	1 26 32
9th .. ..	..	0	31 28	24th .. ..	..	1 30 28
10th .. ..	..	0	35 24	25th .. ..	..	1 34 24
11th .. ..	..	0	39 20	26th .. ..	..	1 38 20
12th .. ..	..	0	43 16	27th .. ..	..	1 42 16
13th .. ..	..	0	47 12	28th .. ..	..	1 46 12
14th .. ..	..	0	51 8	29th .. ..	..	1 50 8
15th .. ..	..	0	55 4	30th .. ..	..	1 54 4
16th .. ..	..	0	59 0	31st .. ..	..	1 55 0

Thus, on January 16th, at 7h. 1m. P.M., the stars will occupy the same position in the heavens as they will do on January 1st, at 8h. P.M.

The description of the heavens, so far as the stars and constellations are detailed, will be the same nearly, at the same times, on the same days for many years.

## TIMES OF THE POLE STAR (POLARIS) BEING ON THE MERIDIAN, OR DUE NORTH, DURING THE YEAR 1850.

The Pole Star (that which is usually so called) is situated at the angular distance of 1½° from the Pole, and describes a circle at this distance around this point or pole. If we suppose a star there placed, it would appear stationary. The Pole Star not being so placed, it is due north only at such times as in its revolution it is on the meridian, which circumstance takes place twice every day—once when the star is above the pole, and once when it is below the pole. The following are the times, on the 1st day of every month during the year 1850, that the Pole Star is so situated:—

	H. M. S.			H. M. S.		
	H.	M.	S.	H.	M.	S.
Jan. 1 at 6 23 12 A.M. below the Pole, and at 6 21 13 P.M. above the Pole.	6	23	12	6	21	13
Feb. 1 .. 4 20 53 .. ..	4	20	53	4	18	55
March 1 .. 2 30 29 .. ..	2	30	29	2	28	31
April 1 .. 0 28 27 .. ..	0	28	27	0	26	29
May 1 .. 10 28 36 .. above the Pole, and at 10 26 38 .. below the Pole.	10	28	36	10	26	38
June 1 .. 8 27 1 .. ..	8	27	1	8	25	3
July 1 .. 6 29 27 .. ..	6	29	27	6	27	29
Aug. 1 .. 4 27 58 .. ..	4	27	58	4	26	0
Sept. 1 .. 2 26 25 .. ..	2	26	25	2	24	27
Oct. 1 .. 0 28 38 .. ..	0	28	38	0	26	40
Nov. 1 .. 10 24 46 .. below the Pole, and at 10 22 48 .. above the Pole.	10	24	46	10	22	48
Dec. 1 .. 8 26 35 .. ..	8	26	35	8	24	37

From these times those of the meridian passage of the star can be easily calculated for any other day in every month.

## DISCOVERY OF ANOTHER SMALL PLANET.

On April 12, 1849, Signor de Gasparis, of the Observatory of Naples, whilst comparing Steinheil's Star Map for hour XII with the heavens, discovered a Planet; its appearance at this time was that of a small star of the 9th or 10th magnitude.

M. de Gasparis referred the naming of his new Planet to M. Capocci, who has called it *Hygeia*. (See the monthly notices of the Royal Astronomical Society, Nos. 7 and 8 of the 9th volume, for Ephemerides and Elements.)



## CLOG ALMANACK

PRESERVED IN THE CHETHAM LIBRARY, MANCHESTER.

Whether the "Clog," of which we here give an Engraving, was originally left to the Library by the founder, or was presented subsequently by some other person, we have not been able to ascertain. Though unquestionably formed after an ancient Runic type, it is certainly not of great antiquity; and probably not of an earlier date than the time of Humphrey Chetham, who lived in the reigns of James I. and Charles I., and founded the library which bears his name, in 1665. About forty years ago, when a boy belonging to the school usually acted as guide to visitors to the Library, he never failed to draw their attention to the "Clog," as one of the principal curiosities. "This," exclaimed the juvenile *Cicerone*, "is a Clog Almanack, such as were in use in this country before the invention of printing."

Almanacks, or more properly Calendars, of this kind, were used by the Danes, Norwegians, and other people of northern race, at a very early period; and a full account of their various kinds and different names—Rim-stocks, Rune-stocks, Primstaves, Scipiones Runic, and Baculi Annales—are to be found in the "FASTI DANICI" of Olaus Wormius, printed at Copenhagen, 1643. One of those Calendars, in the form of a walking-stick, was exhibited by Sampson Hodgkinson, Esq., at the meeting of the Archaeological Institute, at Lincoln, in 1848; and an engraving of it is given in the ILLUSTRATED LONDON ALMANACK for 1849.

Versteegan, in his "Restitution of Decayed Intelligence in Antiquities," 1605, thus speaks of those calendars in his third chapter, "Of the Ancient Manner of Living of our Saxon Ancestors:—" "They used to engrave upon certain squared sticks, about a foot in length, or shorter or longer as they pleased, the courses of the moons of the whole year, whereby they could always certainly tell when the new moons, full moons, and changes should happen, as also their festival days; and such a carved stick they called an *Al-mon-aght*—that is to say, Al-moon-head: to wit, the regard or observation of all the moons; and here-hence is deryved the name of Almanack."

That we may not be supposed to con-cern in this derivation of Almanack, we merely remark, that "our Saxon an-cursors" had no such name for their cal-endars as "*Al-mon-aght*;" and that Ver-steegan's etymology may, with better reason, be termed "All-moon-shine."

Dr. Robert Plot, in his "Natural History of Staffordshire," printed at Oxford, 1686, gives a full account of Clog Almanacks of the kind represented in our Engraving; and speaks of them as being still in use "among the meaner sort of people" in that county. He, however, says that it is "a sort of antiquity so little known, that it hath scarce been heard of in the southern parts of Eng-land, and understood now but by few of the gentry in the northern." With re-spect to the term "*Clog*," he thus runs his head against it, while pretending that it was something difficult to be found:—"As to the divers names of them, they are here called *Cloggs*, for what reason I could not learn, nor, in-deed, imagine, unless from the Eng-lish *log* (a term we usually give to any piece of wood), or from the like-ness of some of the greater sorts of them to the clogs wherewith we usually re-strain the wild, extravagant, mischiev-ous motions of some of our dogs." In Staffordshire, in his time, some few were of brass; but most of wood, chiefly box: others were of fir and of oak, though not so frequent. Those of larger size, such as are represented in our Engraving, were commonly hung at the end of the mantel-tree, by the chimney-nook; others of smaller size were carried in the pocket.

Each of the four faces contained a period of three months, commencing with the 1st of January. The days were re-presented by the notches on the edges, every seventh notch being somewhat wider than the others; and the first day of each month was distinguished by a longer stroke. In those clogs there was no indication of the Dominical Letter.

the addition of dots. Fifteen was represented by a cross with a crook at the top; the intermediate numbers to eighteen being represented by the addition of dots. Nineteen, the highest number in the cycle, was represented by a double cross.

The principal festivals were symbolically represented. For instance—the Epiphany, 6th January, by a star; Valentine's Day, 14th February, a true-lovers' knot; the Purification, Annunciation, Assumption, and other festivals of the Virgin, by a Heart; St. David, 1st March, a Harp; St. Barnabas, 11th June, a Rake—Haymaking; St. Peter, 29th June, Keys; St. Lawrence, 10th August, a Gridiron; St. Crispin, 25th October, a pair of Shoes; St. Katherine, 25th November, a Wheel.

Our Engraving is from a drawing by Mr. Travis, of the firm of Travis and Mangnall, architects, Manchester.

## WHITSUN ALE JUG.

This representation of a Whitsun Ale Jug is taken from an excellent specimen in the interesting Museum collected by T. Crofton Croker, Esq. The jug is of white earthenware, and the word WHIR, and the date 1649, and the characteristic flourish underneath it, are painted blue.

Whitsun Ales were festivals formerly common at Whitsuntide, in which ale formed the predominant liquor, and hence arose the metonymy; although there has been a vast amount of pains employed to trace the name to other sources. As the money requisite for the feasts was collected by the churchwardens of the parish, Whitsun Ales have also been called Church Ales. They were kept on Sundays, notwithstanding their low and profane revelry; and entries often occur in church books of disbursements in these unholy pastimes, with which, however, are oddly mixed up charges for repairs of the church, maintaining of orphans, &c.



WHITSUN ALE JUG.

Mr. Douce has left us the following details of the Whitsun Ale:—"Two persons are chosen, previously to the meeting, to be lord and lady of the ale, who dress as suitably as they can to the characters they assume. A large empty barn, or some such building, is provided for the lord's hall, and fitted up with seats to accommodate the company. Here they assemble to dance and regale in the best manner their circumstances and the place will afford; and each young fellow treats his girl with a ribbon or favour. The lord and lady honour the hall with their presence, attended by the steward, sword-bearer, purse-bearer, and mace-bearer, with their several badges or ensigns of office. They have likewise a train-bearer or page, and a fool or jester, dressed in a party-coloured jacket, whose ribaldry and gesticulation contribute not a little to the entertainment of some part of the company. The lord's music, consisting of a pipe and tabor, is employed to conduct the dance. Some people think this custom is a commemoration of the ancient *Drink-lean*, a day of festivity formerly observed by the tenants and vassals of the lord of the fee within his manor; the memory of which, on account of the jollity of those meetings, the people have thus preserved ever since. The glossaries inform us that this *Drink-lean* was a contribution of tenants towards a potation, or ale, provided to entertain the lord or his steward."

## TOKENS OF THUNDER.

THE following curious notices of the tokens of thunder in each month of the year, are from an illuminated almanack of very early date:—

"In the monethe Januarie if ther be thundir it bitokeneth grete wyndis, ha-bundance of fruytis, and bateil to come in that year.

"In the monethe of Februarie, if ther be thundir it bitokeneth deeth of many men, and most of riche men by soris.

"In the monethe of Marcus, if thundir sowne, it bitokeneth grete wyndis, plente of fruytis and strues in the peple.

"In Aprilis thundir if it lowrie it shewith myrry yeeryng and fructuons, but it bitokeneth deeth of wickid mon.

"In Mayus thundir if it come it hitoketh nodre of fruytis and hungir in that year.

"In Juny if it thundir it bitokeneth that woldis shnl he...of...of wyndis and ther shal he grete weondres of honns and of wolves.

"In the monethe of Jull if thundir in that year shal be good corn yeeryng hut the birthe of beestis shal peresche.

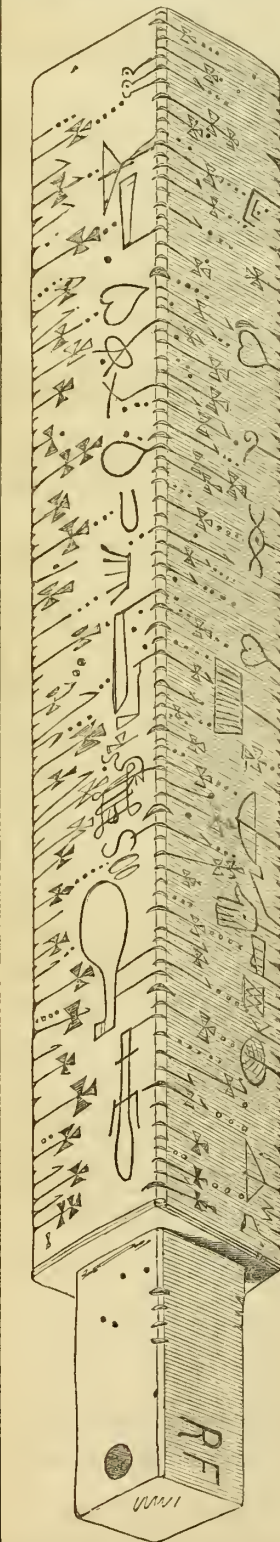
"August thundir it bitokeneth prosperité in the commune and mané man shul be sub....

"In September if it thundre it hitokeneth abundance of fruytis.

"In October if it thundir it bitokeneth a right greet wynd and geod harvest and scarnes of fruytis.

"In the monethe of Novemher if it thundir it hitokeneth aboundance of fruytis and myrthe among folk.

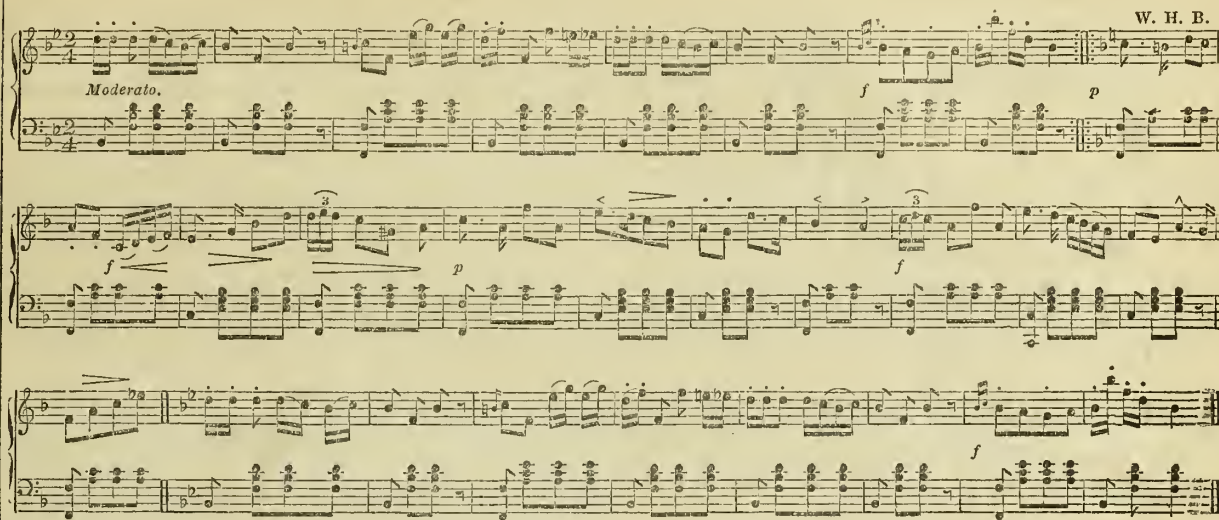
"In December if thundir it hitokeneth aboundance of cornes and pees and accord in the peple."



The Golden Number, when under five, was represented by so many points. The number five was signified by a line with an angular crook at the top; and the numbers between five and ten, by the addition of points or dots. The sign of ten was a cross; and the intermediate numbers to fourteen were signified by



## THE CHRISTMAS POLKA.

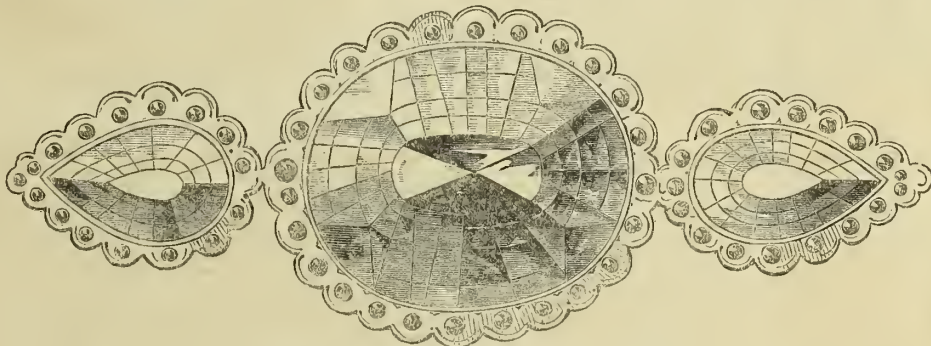
THE CELEBRATED DIAMOND, KOH-I-NOOR,  
OR MOUNTAIN OF LIGHT.

This famous diamond, which was formerly in the treasury of the Maharajah Dhuleep Singh, in the Punjab, has been forfeited by his treachery to the British; and will, it is said, be brought to England in attestation of the success of our arms in India; which has been suggested that the mischievous superstition attached to the possession of this unique gem might be utterly crushed by this retributive consignment.

We have taken some pains to obtain a Sketch of the *Kooh-i-noor*, or "Mountain

of Light," and of Runjeet's ruby; both from drawings copied from originals, by Juan Ram, to whom Runjeet Singh sent them for the purpose, at the request of Lord William Bentinck.

It is generally believed that this diamond belonged to the Pandus; but Tavernier says that it was dug out of the mine of Koloor, which is about four days' journey north-west from Masulipatam, in the Nizam's territories, on the banks of the Godavree; and that it was presented to Shah Jehan by Meer Jumla, who was at first the Commander-in-Chief of the King of Golkonda's army, and afterwards of that of Anrungleb. The mine of Koloor was discovered not more than a hundred years before the time of Shah Jehan; when a Zameendar found a



RUNJEET SINGH'S DIAMOND—"THE MOUNTAIN OF LIGHT."

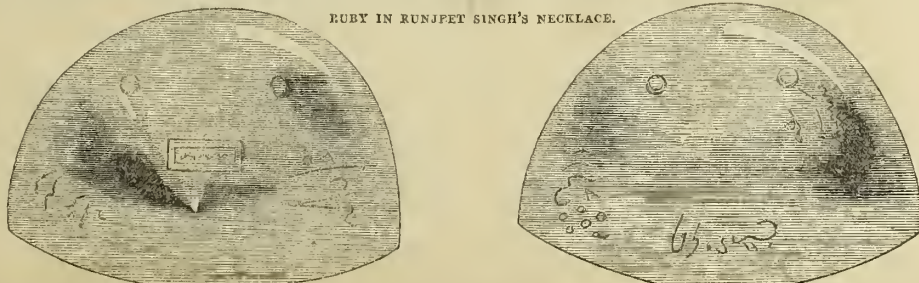
diamond as he was preparing the ground for sowing melons, and this led to the discovery. The Koh-i-Noor is 319 ruttees in weight, and its value was estimated, in the time of Shah Jehan, at 78,15,525 rupees. Shah Jehan applied it to adorn the famous Peacock Throne, which was taken by Nadir Shah to Persia, whence the diamond was brought back to Afghanistan by Ahmedshah Dourance. It remained in the possession of his successors until Maharajah Runjeet Singh obliged Shah Shoojah to deliver it to him.

It is said that this diamond was taken from India by Nadir, the King of Persia, on the same date (29th of March) as that on which, during the past year

(1849), it was retaken from the Sikhs by the rulers of India. The fact is, that it belonged originally to the rulers of India; and now it may be said to have come back again, after such a long time, to the hands of its rightful owners.

Runjeet Singh was accustomed to wear this diamond on his right arm, set, as we have engraved it, in gold, surrounded with small rubies. It has been valued at 25 crore of rupees, or 25 million pounds sterling. Tavernier, who saw it in the possession of the Great Mogul, states its weight to be 279 9-10th carats; before cutting, it weighed 900 carats. Its twin jewel is numbered among the crown jewels of Russia.

RUBY IN RUNJEET SINGH'S NECKLACE.



The Ruby, in the accompanying Illustration, has been sketched under similar circumstances. In the Illustration both sides are shown; the gem is worn in Runjeet's necklace. It belonged to Pandoor Rajah, was taken from him by Timour, and subsequently from Timour's descendants by Ahmed Shah. The

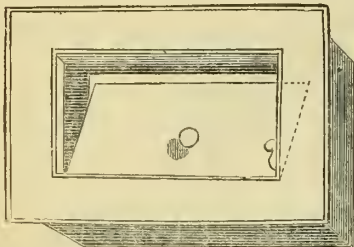
names of the six Kings of Delhi are engraved on this Ruby:—Alumzeer II.; Shah Karam II.; Jehangire, Ackbar, Feroze Shah, and Ahmed Shah. Runjeet valued it at 12½ crore of rupees, or twelve millions five hundred thousand pounds sterling.



DOMESTIC INVENTIONS—SANITARY REGULATIONS, &c.

DR. ARNOTT'S VENTILATING CHIMNEY-VALVE.

Dr. Arnett has suggested, as some relief for an ill-ventilated room, to take a tick out of the wall, near the ceiling, so as to open a direct communication between the room and the chimney.



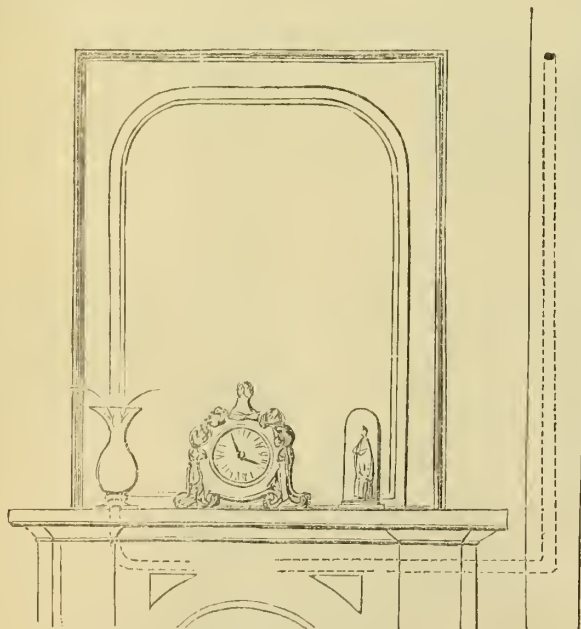
Any occasional temporary inconvenience of draught will be more than compensated by the beneficial results of this simple ventilating process. As an improvement upon these chimney openings, Dr. Arnett has devised a balanced metallic valve, to prevent, during the use of fires, the escape of smoke into the room. The advantages of these openings and valves were soon so manifest, that the Referees appointed under the Building

Act added a clause to their bill allowing the introduction of the valves, and directing how they are to be placed, and they are now in very extensive use. By Dr. Arnett's recommendation, in a crowded dispensary in St. James's-parish, openings were made in the chimney-fines of the rooms near the ceilings, by removing a single brick, and placing there a piece of wire-gauze, with a light curtain-flap hanging against the inside, to prevent the issue of smoke in gusty weather. The decided effect produced at once on the feelings of the inmates was so remarkable, that there was an extensive demand for the new appliance. Most of the hospitals and poorhouses in the kingdom have now these chimney-valves; and many of the medical men and others who have published of late on sanitary matters, have strongly recommended them. Dr. Arnett has freely offered this and other means of ventilation to the public; but persons desiring to use them, should be careful to employ competent makers: they are to be had of ironmongers.

PATENT AIR-SYPHON VENTILATOR.

This new mode of ventilation has been patented by Dr. Chowne, 8, Connaught-place West, Hyde-park, and is based on his finding that, "if a bent tube or hollow passage be fixed with the legs upwards, the legs being of unequal lengths, whether it be in the open air or with the shorter leg communicating with a room or other place, that the air circulates up the longer leg, and that it enters and moves down the shorter leg; and that this action is not prevented by making the shorter leg hot, whilst the larger leg remains cold; and no artificial heat is necessary to the longer leg of the Air Syphon, to cause this action to take place." Thus, by using the chimney of an ordinary room, for example (into which air has free access), as the longer leg, and by conducting a tube or channel constituting the short leg of the Air-Syphon, from any part (as near the ceiling, for instance), into the lower part of the chimney, at the suitable place, a stream of air will proceed from the apartment down the shorter leg, and away up the longer one.

The means of ventilation can be conducted by light zinc tubes passing round and through a room, and finally into the fire-place; and tubes passing from these to the upper parts of the room, the warm air would constantly descend through them to the continuous channel, and then into the larger leg of the Syphon.



The Air-Syphon Ventilator admits also of being extemporaneously and temporarily set up in a sick-room, so as to cause a constant removal of air from the upper portion of the apartment, where it is so apt to hang about the curtain furniture of the chamber, and to impregnate it with the exhalations which are so often the result and generators of disease.

A peculiar fact is, that this mode of ventilation affords facilities hitherto not known for carrying away the heat and other products of combustion from gas-burners, and other lamps, of which the products are offensive. Again, wherever the Air-Syphon Ventilator is in operation, it is certain, that, should an accident

tal escape of gas take place, it will not accumulate, but descend from the upper part of the room, by means of the shorter leg of the syphon.

In the accompanying Illustration, the dotted lines represent the concealed pipes, about two inches in diameter, which are brought down to the chimney opening, and concealed behind the upper part of the jambs. In like manner, the pipe may be conducted from the bottom of an ornamental vase into the flue; when the air would take the course shown by the arrows, and thorough ventilation be thus immediately established.

DANGER FROM STOVES, FLUES, AND PIPES.

It is aeldom that dwelling-houses and such-like buildings take fire and are burnt from the common accidents against which it is practically impossible wholly to guard, such as those which occur to the lighter moveable furniture, and to the drapery used in them; but, for the most part, the danger arises from the exposure of timber, in some form or other, in or about the structure, to the continued action of fire, or of heat, capable, sooner or later, of inducing the combustion of timber; and, as the source is most commonly in some stove, furnace, fine, pipe, or other tube for generating or for conveying heat, or for removing the products of combustion, much of the real danger to buildings from fire would be prevented by preventing that degree of proximity between timber and all such things as can lead to the combustion of the timber. That buildings do not take fire and burn more frequently than they do so, proves that to a great extent precautions are taken, and that dangerous proximity between the conduits of fire or of heat in a condition to induce combustion and the combustible materials in the composition of buildings is prevented. The total number of fires in the metropolitan district in the twelve years from 1833 to 1845 inclusive was 7285, of which the causes of 5515 only were known, and of these 1165 were found to have arisen from flues, and fire-places improperly constructed, from furnaces, heating and cooking apparatus, pipe-stoves, drying-stoves, bakers' ovens, and kilns. The daily returns made by the London Fire-Engine Establishment to the insurance-offices state the supposed causes of the fires which occur, and from these it appears that more than one-half of the fires which have reached the structure of buildings, are considered to have originated in defective or overheated chimney-flues, in dead flues, or in some of the many varieties now in use of stoves and furnaces, and their metal tubes or other adjuncts and accessories for the purpose of distributing heat, and, in some cases, for removing heated air, as in removing the product of the combustion of gas. Further investigation generally justifies the supposition of the officers of that establishment as to the cause of the fire in any case, and for the most part proves that the danger had arisen, not from accident, properly so called, but from arrangements which admit of casualty, and, generally, arrangements made contrary to existing legislative provisions for preventing such casualties. A valuable building, used as a club-house, in Gresham-street, in the city of London, was seriously damaged by fire, from the placing of a series of small furnace-fires, to form what is termed a hot-plate, upon the wooden and timber-formed floor of the kitchen of the club-house, the thin brick hearths of the furnaces being literally hedged upon the flooring-boards. The Metropolitan Buildings Act provides "as to every furnace used for the purposes of trade or manufacture, that it must not be placed upon nor within a distance of eighteen inches of any timber or wood-work."—From "A Guide to the Proper Regulation of Buildings, Streets, Drains, and Sewers," by William Hosking, Architect and C. E.

BELL-TRAPS.

To protect buildings from the foul air generated in, or returning by, their own drains, the waste-ways should be double trapped—by a Bell-trap at the sink where waste water enters from the surface, and by a well-trap, or what workmen term, in plainer language, a sink-trap, short of the inlet to the drain; and the communication between the waste-way and the drain should have such a fall, or be so much above the bottom of the drain, that the overflow may be always from the well into the drain, and not from the drain into the well. If, however, bell-traps might be soldered down, and it were done, well-traps in addition would be unnecessary. Bell-traps are commonly left loose, because many substances which pass through the grating or strainer of the trap refuse to pass the trap, either floating so that they cannot go under the lip of the bell, or sinking in the well so that they do not get over the standing end of the drain pipe; and as tea-leaves, rice, and other matters arising from the washing of plates and dishes, the ravelled threads of housecloths, hair from brooms, and many other such like matters, find their way to the grating in the sink, or at the drain-head, and enough of them pass through and lodge in the well into which the bell is dipped, the escape becomes choked, and the trap requires to be lifted to clear the way. To solder down bell-traps is, therefore, to render the sinks useless, unless they are protected from access of such obstructions, or means be devised of clearing them away. They may be protected by a wire strainer over the sink, to stop everything that can tend to choke a bell-trap before it can reach the grating; or any ordinary obstruction may be cleared by forcing all such matters as will pass the grating of a bell-trap to go under the lip of the bell, and to rise over the end of the stand-pipe, and so pass away into the drain, and the requisite force may be obtained from a slight head of water by means of a very simple apparatus that may be always at hand in every house—a tin or other cheap metal tube of three or four feet in length, funnel-shaped at each end, and the edges formed or honed with caustic soda, so that, when stood on end and pressed firmly down, there may be a water-tight joint. This instrument placed over the grating of any bell-trap so as to embrace it fully, and filled with water, the pressure will be sufficient to clear away any ordinary obstruction from the trap, and render it unnecessary to leave the trap loose. Such an apparatus may be applied by any maid-servant, and to any sink in or about a house, wherever, it must be added, there is clear height enough for it to be placed upright, though it is capable of being articulated to bend in some slight degree; and it may be made telescope fashion, to give the means of increasing the pressure if need be.—*Ibid.*

SEA-SIDE NUISANCES.

The inhabitants of, and visitors to, many of our sea-side watering-places are often exposed to annoyance, and sometimes to injury, from the discharge of the town drainage upon the much-frequented sea-beach. Cast-iron mains are commonly used at these places to conduct the sewage from the sewers and drains a little way out from the land, and these are commonly allowed to terminate at half-tide level or thereabouts, so that they are for half their time discharging noisome and pestilential streams under the nostrils of those who betake themselves to the beach for air and exercise. But ladies, with hooks or with needle-work, and nuracs with their charges, are apt to resort to the propped-up and clean-looking round iron pipes for the convenience they offer as seats; and as they sit, they, and the children who play about them, inhale the poisonous gases which the sewage of the town emits, and many a family returns inland from the sea-side fevered with the stench at the sea-beach rather than invigorated by the sea-breezes. A few years ago the writer of these lines brought his family home to London, after a six weeks' residence at a sea-side watering-place, with all his children ill, and one of them seriously so, with fever, which resulted in the measles, brought on, he then believed, and still considers, by the cause alluded to. There were some of the town sewer pipes running out to half-tide distance

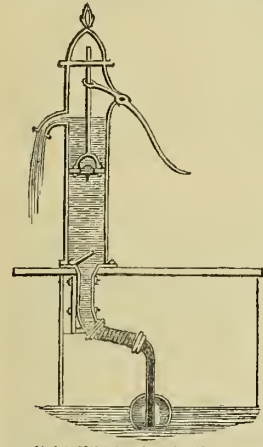


in the most accessible part of the heach, and upon some of these his children's nurse would seat herself day by day with the baby on her lap, and with the elder children playing about her, and with the children of other families similarly exposed to the same danger.—*Ibid.*

PATENT FLOATING FILTERING PUMP.

This new Pump, for cleansing and filtering unwholesome water, is the invention of Mr. S. Cheavins, of Donington, in Lincolnshire. Its advantage is to procure a pure and wholesome, as well as an abundant supply—results which, it is believed, have not hitherto been combined in a pump.

The inventor states that his Floating Filtering Pump has been tested in a tidal river, and is now used in the extensive hewery in Spalding, where it furnishes a constant and abundant supply of wholesome water, entirely free from the sand and filth which the old leaden pipes, by being placed nearly to the bottom of the water, were in the constant habit of contracting, thereby preventing the engine from obtaining a sufficient quantity of water for the supply of the brewery; and, as a still greater proof of its utility, it may be added, that it has been frequently surrounded with the weeds and rubbish carried down the river, and yet has never, in one single instance, failed to produce a copious supply. Water is sweeter and purer at the surface than it is at the bottom, and the Floating Filter totally ejects filth of every description, such as worms, &c., and all impurities of the smallest kind. The common pump, in consequence of the pipe descending within six or eight inches of the bottom, draws up with the pure water every pernicious sediment within its reach. On the other hand, the Floating Filter, by taking a supply of water within four or six inches of the surface, and rising and falling with the water, at once secures it from all sediment; and should there be



any light filth floating in the same, the Filter totally ejects it, and will supply hundreds of tons of pure and wholesome water daily if required.

The importance of the purity of water for drinking was never better understood than in the present age of sanitary improvement. Now, the Patent Filter may be fixed to tanks and huts, so as to remove all apprehension of unwholesomeness in the water by any impurity drawn up with it. The Filter can also be attached, without difficulty, to pumps of the old construction.

We have seen Mr. Cheavins's Floating Filtering Pump at work, and can fully attest its successful operation.

WRIGHT'S PATENT VULCAN CHIMNEY-SWEEPING MACHINES.

The inefficacy of machinery for sweeping tortuous, angular, and irregular chimneys, has long been matter of complaint; and has, in some instances, led to the return to the employment of climbing-boys, which the application of machines was intended to supersede. The common failure of the machines hitherto used has been that they swept equally both ways, and left much of the soot in the chimneys.

The Patent Vulcan Sweeper is capable of contracting and expanding by the use of a cylinder or band of vulcanised india-rubber, upon which separate little brushes are so placed, that in ascending they easily press backwards, and leave the soot on the slopes, in the same manner as the common brush; whereas, on the return of the machine, the pressure on the little brushes being reversed, they stand firmly out and hold the head in the middle of the flue, sweeping all before it. The cylinder is fixed under a cap, and is protected from all external obstacles. The six little brushes form a round head, when all at liberty, but each one can dip down independently of the other when required to do so. There are, also, universal joints of a novel character, constructed with the vulcanised india-rubber; and, in cases where the chimney pots are very contracted, a small pilot brush, with very stiff whalebone to scratch off the hard soot, precedes the main one, and thus averts the necessity of its being squeezed through the narrow orifice, which is always attended with more or less danger to the pot, and requires so great a range of elasticity in the machine as to render it weak and inefficient in large flues. The Vulcan machines are employed in various ways, and of different sizes, to sweep stove-pipes, and every kind of chimney. They are manufactured and sold by Mr. Every, at Quarndon, near Derby.

PRECAUTIONS AGAINST CHOLERA.

Medical authorities are agreed that the remedies proper for the premonitory symptoms of cholera are the same as those found efficacious in common diarrhoea; that the most simple remedies will suffice, if given on the first manifestation of this symptom; and that the following, which are within the reach and management of every one, may be regarded as among the most useful, namely, 20 grains of opiate confection, mixed with two tablespoonfuls of peppermint-water, or with a little weak brandy-and-water, and repeated every three or four hours, or oftener, if the attack is severe, until the looseness of the bowels is stopped; or an ounce of the compound chalk mixture, with 10 or 15 grains of the aromatic confection, and from five to ten drops of laudanum, repeated in the same manner. From half a drachm to a drachm of tincture of catechu may be added to this last, if the attack is severe.

Half these quantities should be given to young persons under fifteen, and smaller doses to infants.

It is recommended to repeat these remedies night and morning, for some days after the looseness of the bowels has been stopped. But, in all cases, it is desirable, whenever practicable, that even in this earliest stage of the disorder, recourse should be had to medical advice on the spot.

Next in importance to the immediate employment of such remedies, is attention to proper diet and clothing. Every article of food which is known to favour a relaxed state of the bowels should, as far as possible, be avoided—such as every variety of green vegetable, whether cooked or not, as cucumber and salad. It will be important, also, to abstain from fruit of all kinds, though ripe, and even cooked, and whether dried or preserved. The most wholesome articles of vegetable diet are, well-baked, but not new, bread; rice, oatmeal, and good potatoes. Pickles should be avoided.

The diet should be solid rather than fluid; and those who have the means of choosing should live principally on animal food, as affording the most concentrated and invigorating diet; avoiding salted and smoked meats, pork, salted and shell-fish, cider, perry, ginger-beer, lemonade, acid liquors of all descriptions, and ardent spirits.

Great moderation, both in food and drink, is absolutely essential to safety

during the whole duration of the epidemic period. One single act of indiscretion has, in many instances, been followed by a speedy and fatal attack.

On account of the intimate connexion between the external skin and the internal lining membrane of the bowels, warm clothing is of great importance. The wearing of flannel next the skin is therefore advisable. Recent experience on the Continent seems to show that it was useful to wear in the day-time a flannel bandage round the body, and this may become necessary in our own country during the damp and cold weather of the approaching season.

Particular attention should be paid to keeping the feet warm and dry; changing the clothes immediately after exposure to wet; and maintaining the sitting and bed-rooms well aired, dry, and warm.

It may be necessary to add a caution against the use of cold purgative medicines, such as salts, particularly Glauber salts, Epsom salts, and Seidlitz powders, which, taken in any quantity, in such a season, are dangerous. Drastic purgatives of all kinds should be avoided, such as senna, colocynth, and aloes, except under special medical direction.

If, notwithstanding these precautionary measures, a person is seized suddenly with cold, giddiness, nausea, vomiting, and cramps, under circumstances in which instant medical assistance cannot be procured, the concurrent testimony of the most experienced medical authority shows that the proper course is to get as soon as possible into a warm bed; to apply warmth by means of heated flannel, or bottles filled with hot water, or bags of heated camomile flowers, sand, bran, or salt, to the feet and along the spine; to have the extremities diligently rubbed; to apply a large poultice of mustard and vinegar over the region of the stomach, keeping it on fifteen or twenty minutes; and to take every half-hour a tea-spoonful of sal volatile in a little hot water, or a desert-spoonful of brandy in a little hot water, or a wine-glass of hot wine whey, made by pouring a wine-glass of sherry into a tumbler of hot milk: In a word, to do everything practicable to procure a warm, general perspiration, until the arrival of the medical attendant, whose immediate care, under such circumstances, is indispensable.

It has not been deemed necessary or proper to give instructions for the treatment of the advanced stage, from the confident expectation that the proposed arrangements will supply medical attendance to all cases that may reach that condition, by which means the specific symptoms of each individual case will receive their appropriate treatment.

Whatever is preventive of cholera is equally preventive of typhus, and of every other epidemic and constantly recurring disease; and the attention of all classes is earnestly called to the striking and consoling fact, that, formidable as this malady is in its intense form and developed stage, there is no disease against which it is in our power to take such effectual precaution, both as collective communities and private individuals, by vigilant attention to it in its first or premonitory stage, and by the removal of those agencies which are known to promote the spread of all epidemic diseases.—*Abridged from the Report of the General Board of Health, to July, 1849.*

DISINFECTING PROCESS.

In all times of epidemic, it is desirable that householders should be warned of the necessity of looking to the state of the sinks, drains, cesspools, water-closets, &c., and that, as a means of prevention, those receptacles should be cleansed by pouring down them a solution of chloride of lime, and that this should be done simultaneously throughout the neighbourhood, in order to produce an effect on the public sewers; this mode of purifying being adopted at one time: thus, in 1849, it was publicly recommended, between the hours of nine and ten on each Saturday morning. This plan was carried out at Tottenham for several weeks, and here no case of cholera occurred, nor were the cases of diarrhoea more frequent or severe than usual at that season of the year. Chloride of lime may be had of any druggist. Two ounces is sufficient to be stirred into a pail-full of water, and costs only one penny.

ORIGIN OF THE "BILLS OF MORTALITY."

The Bills of Mortality were commenced in the reign of Queen Elizabeth, and ever since the year 1603 have been published by authority in London. In this respect the English metropolis stands alone; no weekly tables of the causes of the death of every inhabitant are published in the capital of any other European state. Various motives for the measure have been assigned; but the fact of continuous publication from a period anterior to the appearance of newspapers and gazettes, is remarkable and characteristic. It may be fairly referred to the natural inclination of the English people, when they are in trouble, to know the truth, and to see in figures the precise extent of their losses, although at times the sight might well make the courage of the bravest quail. On the Continent, "precautions" were used in publishing the mortality of cholera in 1849; and the deaths from all causes were not made known.

The parish-clerks of London, in the seventeenth century, when the plague was at its height, counted the deaths and reported the supposed causes; and the citizens, when the death-cart traversed the streets, anxiously studied the bill, surrounded by its gloomy symbolical border, announcing 8297 deaths in a week, out of a population of 600,000. Returns just published by order of the House of Commons, show that the total number of new houses built within the metropolitan police districts since January 1, 1839, up to September, 1849, amounts to 64,055; and the number of new streets formed to 1652, in length 200 miles. The increase of population from 1839 to 1849, within the said district, is estimated at 525,004; the total population of the metropolitan district being now about 2,356,960. In the hands of Price, Heberden, Willis, Bateman, and other statisticians, these records have disclosed the laws of mortality, and the causes of the insalubrity of the present cities.

STATISTICS OF METROPOLITAN BURIAL-GROUNDS.

In area, the parochial grounds take up 176 acres and 3-10ths; the Protestant Dissenters, 8 acres and 7-10ths; the Roman Catholics, 3-10ths of an acre; the Jews, 9 acres and 2-10ths; Swedish Chapel, 1-10th; undescribed, 10 acres and 9-10ths; private, 12 acres and 6-10ths. Total of intramural, 218 acres and 1-10th; total of new cemeteries, 260 acres and 5-10ths.

	Annual No. of burials exclusive of vault burials.	Average annual No. of burials per acre.	Highest No. of burials per acre in any ground.	Lowest No. of burials per acre in any ground.
Parochial grounds ..	35,747	191	2073	11
Protestant Dissenters ..	1715	197	1210	6
Roman Catholics ..	270	1043	1613	814
Jews ..	340	33	52	13
Swedish Chapel ..	10	108	—	—
Undescribed ..	2197	294	1109	5
Private ..	5112	405	2323	50
Total intramural ..	44,355	203	1080	46
Total of new cemeteries ..	3336	13	155	4
Vault burials ..	759	—	—	—

It is computed that it requires seven years for a layer of bodies to decay in the metropolis.—*Banfield and Weld's Statistical Companion.*



## RURAL ECONOMY.

## CHOICE OF FOWLS, ETC.

The most important varieties of Fowl are the Cochín China, the Malay, the Spanish, the Dorking, the Old Sussex, the Hamburg, the Polish, the Columbian or Mongolian, the Bantam, and the Game Fowl.

The *Cochín China* is usually of a bright bay colour, darker above with a black horse-shoe mark upon the breast, wings borne tightly up, bearing erect and lively, whole form approaching to that of the Bustard, comb and wattles large and simple. This fowl was introduced into Great Britain some years back by Her Majesty, and it is truly a Royal bird. The hen is prolific to an extraordinary degree: "Bessy," when in the possession of the Queen, is stated to have laid an egg daily for 95 successive days—a degree of fecundity unrivalled by any other variety. These hens, also, repeatedly lay two, and even three eggs per day, for many days in succession. The flesh is excellent, but the bird is much too scarce and costly for general use. The cock is *game* to the last degree, capable of killing the most powerful game-cock in a few minutes.

The *Malay* is nearly as large as the Cochín China; but it is not a good bird in flesh. The hen does not lay so large an egg as her size would promise. The Malay fowl is, however, valuable for crossing with other varieties.

The *Spanish* is known by its jet black colour, large toothed comb and wattles, and white cheek or earpiece. This is one of the very best birds, it is fully civilised, and consequently hardy, and of beautiful appearance; possesses flesh of the best and whitest quality, and acquires it very rapidly: the hen lays a large egg, and is only surpassed in fecundity by the Cochín China.

The *Dorking* is remarkable for possessing five well-developed toes, and sometimes a rudimentary sixth, on each foot. This is a plump-bodied white-fleshed fowl, very good for table use; and the hen is tolerably prolific, but not equal in that respect to the Spanish. The *Sussex* has latterly, to a great degree, superseded the Dorking in popular estimation; in form and appearance; indeed, the birds are almost identical, save in colour—the Dorking being, when pure, usually of a speckled or *cuckoo* colour, and the *Sussex* being generally dark brown, sometimes relieved with white spangles. *White Dorkings* are prized by some, but they are delicate, and do not attain any size.

The *Hamburg* and *Polish* resemble each other closely, are known by their large top-knots, and gay, or even gorgeous plumage. They are very ornamental, but not entitled to the notice of such as look chiefly or solely to pounds, shillings, and pence.

The *Columbian* or *Mongolian*, a native of South America, is a small and singularly beautiful bird, standing very erect. Its colour is a black ground, relieved about the head, neck, and wing coverts by numerous spangles of white, and here and there patches of brilliant green bronze. The comb of the cock is large, and the hen has one also; she has, too, a tuft of feathers below the bill, and two tufts springing, moustache-like, from the corners of the mouth. The egg laid by her is of extraordinary size, but she seldom lays more frequently than one every second day, and, during a considerable portion of the laying season, does not lay at all. As a *fancy fowl*, this may compete with the Cochín China; but its flesh is black and tough.

The *Bantam* is too well known to require description. The bay variety, with black spangles and naked legs, known as the "Schright," is the most valuable. At the show in London, in February, 1847, three of these birds fetched the amazingly large price of fifty pounds and one shilling. The Bantam is singularly prolific, and the little egg is considered a delicacy peculiarly suited to the invalid, or to persons whose digestive powers have become impaired.

The *Game Fowl* are very prolific, are ready fatteners, and possess more delicate flesh than any other known variety. If they can be kept strictly apart, well and good; otherwise their pugnacity renders them unfit inmates of the general poultry-yard, as their individual value will by no means compensate their keepers for the injury they may do to other, and probably more valuable birds.

Her Majesty's poultry-keeper, Mr. Walters, made the experiment of crossing the Dorking with the Cochín China fowl, and a noble and valuable breed was the result. Mr. Burgess, of Pill-lane, Dublin, has the merit of having established an entirely new and valuable variety, known as "Burgess's Black," by a cross between Spanish and Malay, grafted with Dorking. The *Sussex* or Dorking makes a good cross with the Spanish. The Columbian and *Sussex* produces an admirable bird, possessing excellent shape, great fecundity, and retaining the characteristic of laying eggs nearly as large as those of a goose. The advice to the farmer on the subject of crossing is, that he keep as a standing stock, Spanish and *Sussex*; that he also have, if possible, a Cochín China cock, but in any case a Malay cock. In this manner, he will, by cautious admixture, gradually arrive at his desideratum. The *Sussex* possesses the highest perfection of form; the Spanish the best flesh, and laying qualities of a high character; while the Malay gives increased size, and if it be the Cochín China which is employed for that purpose, also increased fecundity. Let the reader follow this advice, and he will find himself amply compensated for any trouble or preliminary expense he may be at, by the large returns he will experience in the substantial and satisfactory form of pounds, shillings, and pence.

Most properly kept and properly fed fowl have, in January, begun to lay, and it is then advisable to set the eggs as early as you can collect a clutch. These early chickens will be ready the sooner to meet the market, and such as are to be kept will be the better able to endure, uninjured, the temperature of the ensuing winter.—*Abridged and selected from a paper by Mr. H. D. Richardson, in the Agricultural and Industrial Journal, No. 1.*

To make Hens Lay Perpetually.—Keep no roosters; give the hens a very small portion of fresh meat chopped up like sausage meat, say half an ounce a day to each hen, during the winter, or from the time insects disappear in the fall till they appear again in the spring. Never allow nest eggs. The only reason why hens do not lay all winter as freely as in summer is the want of animal food, which they get in summer in abundance, in the form of insects. The writer assures us that he has for several winters reduced his theory to practice, and proved its entire correctness.

Rules in Raising Poultry.—1. All young chickens, ducks, and turkeys should be kept under cover, out of the weather, during rainy seasons. 2. Twice or three a week, pepper, shallots, shives, or garlic should be mixed up with their water given them to drink. 4. Whenever they manifest disease, by the drooping of the wings, or any other outward sign of ill-health, a little assafœtida, taken into small lumps, should be mixed with their food. 5. Chickens which are kept from the dunghill while young seldom have the gapes; therefore it should be the object of those who have the charge of them so to confine the hens as to preclude their young from the range of barn or stable yards. 6. Should any of the chickens have the gapes, mix up small portions of assafœtida, rhubarb, and pepper, in fresh butter, and give each chicken as much of the mixture as will lie upon one-half the bowl of a small teaspoon. For the pip, the following treat-

ment is judicious:—Take off the indurated covering on the point of the tongue, and give twice a day, for two or three days, a piece of garlic the size of a pea. If garlic cannot be obtained, onion, shallot, or shives will answer; but if neither of these be convenient, two grains of black pepper, to be given in fresh butter, will answer. 8. For the snuffles, the same remedies as for the gapes will be found highly curative; but, in addition to them, it will be necessary to melt a little assafœtida in fresh butter, and rub the chicken about the nostrils, taking care to clean them out. 9. Grown-up ducks are sometimes taken off rapidly by convulsions; in such cases, four drops of rhubarb and four grains of cayenne pepper, mixed in fresh butter, should be administered. Last year we lost several of this disease, and this year the same symptoms manifested themselves among them; but we arrested the malady without losing a single duck, by a dose of the above medicine to such as were ill. One of the ducks was at the time paralysed, but was thus saved.—*Canterbury Journal.*

Wasps' Nests.—These troublesome insects appeared during the past year in great numbers. It is not always possible completely to demolish the nest. The following contrivance for entrapping the stragglers will be found useful. Bury a wine bottle in the ground, so that the mouth alone shall be uncovered. The experiment will be the surer if a small quantity of sugar and water, or honey, be left at the bottom of the vessel. The wasps will get into the bottle, and be unable to effect an exit; and in a short time it may be taken up chokeful of carcasses.

Cure for Bee-Stings.—The only positive and immediate cure for a bee-sting we have ever heard of, that may be depended on in all cases, is tobacco. The manner of applying it is as follows:—Take ordinary fine-cut smoking or chewing tobacco, and lay a pinch of it in the hollow of your hand, and moisten it and work it over until the juice appears quite dark-coloured; then apply it to the part stung, rubbing in the juice, with the tobacco between your thumb and fingers, as with a sponge. As fast as the tobacco becomes dry, add a little moisture and continue to rub and press out the juice upon the inflamed spot during five or ten minutes; and, if applied soon after being stung, it will cure in every case.—*Miner's American Bee-keeper's Manual.*

## BUTTER-MAKING.

In the Valais, Dr. Forbes, the celebrated physician, assures us, Butter is preserved sweet, or, at least, perfectly fit for use, through the whole season, without any admixture of salt. The following is the way in which it is treated:—"A narrow deal board, not more than four or five inches wide, is fixed horizontally in an open place in the dairy; wooden pins, from two to three feet in length, are fixed in an upright position into this, their whole length projecting above its surface. As the butter is made it is placed daily around these pins (one at a time), beginning at the lower end, and in a mass not exceeding at first the width of the board. Every day, as more butter is made, it is added to the previous portion around the pin, the diameter of the growing mass being gradually enlarged upwards, until the upper surface overhangs the base to a considerable extent, like an inverted beehive. When one pin is filled, another is proceeded with in like manner, and so on. The exposed surface of these masses gets soon covered with a sort of hard film, which effectually excludes the access of the air; and this circumstance, with two others—viz. the complete expression of milk from the butter, and the unobstructed circulation of a cool mountain air through the *chalet*, will go far to explain how butter so treated can remain so long without becoming spoiled." Dr. Forbes also gives the following mode of preparing the winter store of butter, or what is called in the Valais and Piedmont *beurre cuit*, or boiled butter, which the Doctor considers much more advantageous to health and comfort than the cheap salt butter sold in England:—"Into a clean copper pan (better, no doubt, tinned) put any quantity of butter, say from twenty to forty pounds, and place it over a very gentle fire, so that it may melt slowly; and let the heat be so graduated that the melted mass does not come to the boil in less than about two hours. During all this time the butter must be frequently stirred, say once in five or ten minutes, so that the whole mass may be thoroughly intermixed, and the top and bottom change places from time to time. When the melted mass boils, the fire is to be so regulated as to keep the butter at a gentle boil for about two hours more; stirring being still continued, but not necessarily so frequent as before. The vessel is then to be removed from the fire, and set aside to cool and settle, still gradually; this process of cooling being supposed also to require about two hours. The melted mass is then, while still quite liquid, to be carefully poured into the crock or jar in which it is to be kept. In the process of cooling there is deposited a whitish cheesy sediment proportioned to the quantity of butter, which is to be carefully prevented from intermixture with the preserved butter. There are some variations in the process in the practice of different individuals, but everybody agrees in asserting that butter so preserved will last for years perfectly good, without any particular precautions being taken to keep it from the air, or without the slightest addition of salt."

To Correct Sourness in Milk, Cream, and Bread.—It is not generally known that the sourness of milk and cream may be immediately corrected by the addition of a small quantity of the common carbonate of magnesia, in powder. Half a teaspoonful (about equal to 4 grains) may be added to a pint of milk or cream, if only slightly sour; a larger quantity in proportion to the degree of sourness. From two to three grains may be added to every pound of flour to prevent sourness in bread—so injurious to health. Carbonate of soda is sometimes employed for the same purpose, but it communicates a very unpleasant flavour to the bread; and, in the case of milk or cream, is worse than the disease.

## TO CURE HAMS.

Westphalia Hams.—Get the hams cut in the shape of Westphalias, long, narrow, and pointed at the end, and put them under a board, heavily pressed down, to flatten them. About four days after killed, rub them with common rough salt, particularly about the hip-bone and knuckle joints. After a day and a night, remove the salt, dry the hams with a coarse cloth, and rub into each 1 oz. saltpetre powdered finely, and let it lie for 24 hours. Then mix powdered saltpetre, 1 oz.; common salt,  $\frac{1}{2}$  lb.; bay salt,  $\frac{1}{2}$  lb.; coarse sugar, 1 lb.; make them hot in a pan—but be careful not to melt them—rub them well in while hot, all over the fleshy and rind sides, and finish with half a pound more common salt. Let the hams lie thus until a brine appears, strew bay-leaves both under and over, turn them every day, and rub them and baste them with the brine for three weeks; then take them out of pickle, and soak them in cold spring water for twenty-four hours; let them drain; wipe them with a cloth; rub them with coagulated pigs' blood, and put them to smoke for a week, well smothered. Or, a sort of Westphalia flavouring may be made of 100 parts of water, 4 of salt, 2 of brown sugar, 1 of Barbadoes tar, and 1 of spirit of wine. After it has been well mixed, and stood for several days, 3 table-spoonfuls may be mixed with the salt necessary to cure a ham.

Westmoreland Hams.—Procure a leg of pork, about 20 lb. weight; rub it well



with 3 oz. saltpetre, and let it lie 14 hours. Then mix stale porter or beer, 2 qts.; common salt, 2 lb.; coarse sugar, 2 lb.; hay salt, pounded, 1 lb.: boil and skim it well, and pour it hot over the meat. In this pickle the meat must remain one month, being rubbed and turned at least every other day. Then take it out, rub it dry, and roll it in malt-dust, or oatmeal; smoke the ham three weeks, and hang it in a dry but not warm room.

**Warwickshire Hams.**—Rub the leg of pork with 2 oz. powdered saltpetre, particularly about the hip-joint, and let it lie 24 hours. Then mix soft water, 1 gallon; pale dried malt, 1 peck; sugar or treacle, 1 lb.; bay salt, bruised, 1½ lb.; common salt, 2½ lb.; shalots or onions, sliced, 3 oz. Boil together ten minutes; skim the pickle; pour it hot over the meat, and let the grains remain until they begin to be sticky, when they may be drained in a sieve, and removed. Keep the ham covered with this pickle for three weeks, and turned and rubbed every day for three weeks, when it may be taken out, dried with cloths, and smoked three weeks or a month. Put the ham into a box with malt-dust, and cover from the air with sand dried in an oven. The three preceding receipts are from "The Whole Art of Pickling, Curing, and Smoking Meat and Fish," by James Robinson, eighteen years a practical curer.

**Beef Pickle, à la Garrick.** (Red.)—Take 20 lb. of salt, ½ lb. saltpetre 4 cakes sal prunella, 4 lb. common sugar, and 2 cloves of garlic. Pound and mix all together, rub with it the meat, cover it for about a week, rubbing and turning it every other day.

#### WINE FROM THE RHUBARB STALK.

Mr. Roberts, of Edinburgh, has appended to the fifth edition of his "British Wine-maker and Domestic Brewer," a Supplement on the Rhubarb Plant, showing it to be a basis nearly as valuable as that of the Grape for producing Champagne, Hock, Madeira, and Constantia. If sweet wine be required, six pounds weight of stalk to a gallon of water will be a proper proportion; but if a dry wine, to imitate Hock, Vin Grave, &c., is wished, more than double that weight will be necessary. The rhubarb should be used as soon after being cut as possible; and if it be of superior quality, the stalks, when ground or grated, and thoroughly pressed, will yield about eighty per cent. of juice; so that, by using 13 pounds, we should have rather more than 10 pounds of juice, and by adding one gallon of water to every 13 lb. of rhubarb stalk, when pressed, we should have two gallons of juice and water; viz. ten pounds of rhubarb juice giving one gallon, and 10 lb. of water giving one gallon. This mixture, made with 13 lb. of rhubarb stalk to the gallon, will take about 3½ lb. of sugar to each gallon, which should be the finest East India or crushed sugar; the sugar giving an excess in quantity of ½ pint to each gallon.

The requisite implements and utensils are a small apple-mill, a fermenting tub, a cask of the same description, but less in size (say 18-gallon), with two or three tap-holes on a line in the front, and near the bottom; the top being taken out, and a flat circular slab of wood, with a few perforated holes, made to fit the interior. This slab, with one or two half-hundredweights placed on it, is to act the pulp-press. Next will be required a sherry quarter-cask, capable of containing about 28 gallons; two tubs, similar to washing-tubs, each to hold 15 gallons—one to receive the pulp from the mill, the other to receive the juice from the press: a hair sieve and stand complete the utensils.

Assuming the quantity of Hock to be made is 27 gallons, with two additional gallons for casking, the weight of rhubarb stalk required will be 156 lb., to be ground in the apple-mill, the pulp running into a tub placed under the spout, and then put into the small cask or press. This press is also placed on a stand, so as to admit the other tub under it to receive the pressed juice which flows from the tap-holes. The juice is then strained through a sieve into the fermenting-tub. Meanwhile, the slab with the weights upon it is put on the pulp in the press, and the pressed juice thus procured strained and added to the former; and in an hour or so the corks may be replaced in the tap-holes, and the slab and weights removed.

The juice which has been strained into the fermenting-tub will measure about 12 gallons. Twelve gallons of water, if possible at the heat of 80° to 100°, are to be poured on the pressed pulp in the small cask or press, the whole thoroughly agitated, and then allowed to remain eight or ten hours, in order to extract what value may have been left in the pulp; after which this liquor is to be drawn off, and added to the juice in the fermenting tub. The pulp is to undergo a second pressing with the slab and weights, and the pressed liquor is to be added to the former juice, which should measure now, in the whole, 24 gallons.

Eighty-four pounds of sugar—the whiter the better—are next to be put to the juice and water in the fermenting-tub, which will cause it to measure about 29 gallons. With this sugar should be put in three-quarters of a pound of tartaric acid, thoroughly dissolved in a little boiling water; and the whole should be then well mixed together.

The fermenting-tub, containing the *must*, is to be placed in a warm situation, and the *must* weighed with a saccharometer, which will indicate perhaps a degree or so more or less than the required standard, 26, i. e. 130. If more, a little boiling water may be added to reduce it; if less, as much sugar as will bring the *must* up to that point.

It is then allowed to ferment until it is reduced in gravity to 80 or 90, being in the interval carefully stirred and weighed. When reduced to 80 or 90, it is to be casked in a newly-emptied sherry quarter-cask, of 27 or 28 gallons. There will be enough *must* to fill the cask at first, and to continue filling it during the time it remains unbunged; the cask being placed obliquely upon a stand, with a dish under it. During the time the wine is fermenting, and before it is bunged down, it should be tried with the saccharometer once a week; and when reduced to one-half its original gravity, say 65, the cask may be bunged down, and the wine allowed to remain undisturbed until October or November, supposing it to have been made in May or June. By this time it should be reduced to 30 of gravity. If, however, at any of these examinations it is found that the wine has attenuated below 30 before the period just mentioned, it must be immediately racked off, to prevent its being too much reduced.

It is then advisable to get another newly-emptied sherry quarter-cask, and to fumigate it twice at about an hour's interval; 2½ gallons of the finest Somersetshire cider, with half a gallon of Buccella wine, are to be put into the cask, to be hunged and well rolled about to incorporate the fumes of the brimstone with the contents. The clear portion of the wine is then to be racked into it, leaving room for the finings, usually consisting of a little Isinglass dissolved in sour wine.

A very delicious and cheap wine may be made from rhubarb stalks—6½ lb. to every gallon of water, and 3½ lb. of sugar to each gallon of juice and water. The rhubarb is ground to a pulp in an apple-mill, and the juice then pressed out of it; it is worked as other home wines, and fined by adding 4 lb. of sugar-candy, dissolved.

**Cold Cream.**—Warm gently together four ounces of oil of almonds and one ounce of white wax, gradually adding four ounces of rose-water. This will make good cold cream, whereas that sold in the shops is usually nothing more than lard heat up with rose-water.

#### COOKERY.\*

**White Haricot Beans.**—Nothing is so cheap or so solid food as haricot beans. Get a pint of fine white beans, called the dwarf; put them into half a gallon of cold soft water, with one ounce of butter; they take about three hours to cook, and should simmer very slowly; drain them and put them into a stewpan, with a little salt, pepper, chopped parsley, two ounces of butter, and the juice of a lemon, place on the fire for a few minutes, stir well, and serve. The water in which it is boiled will not make a bad soup by frying four onions in butter in a stewpan, adding a little flour, then the water poured over, and a slice of toasted bread cut in pieces, and served in a tureen. Should the water in boiling reduce too fast, add a little more. The longer sort requires to be soaked a few hours before boiling.

**Irish way of Boiling Potatoes.**—In Ireland, where this root has been for so long a period the chief nourishment of the people, and where it takes the place of bread and other more substantial food, it is cooked so that it may have, as they call it, a bone in it; that is, that the middle of it should not be quite cooked. They are done thus:—Put a gallon of water with two ounces of salt in a large iron pot, boil for about ten minutes, or until the skin is loose, pour the water out of the pot, put a dry cloth on the top of the potatoes, and place it on the side of the fire without water for about twenty minutes, and serve. In Ireland turf is the principal article of fuel, which is burnt on the flat hearth: a little of it is generally scraped up round the pot so as to keep a gradual heat; by this plan the potato is both boiled and baked. Even in those families where such a common art of civilised life as cooking ought to have made some progress, the only improvement they have upon this plan is, that they leave potatoes in the dry pot longer, by which they lose the bone. They are also served up with their skins (jackets) on, and a small plate is placed by the side of each guest.

**Beetroot.**—Take two nice young boiled beetroots, which will require about from two to three hours to simmer in plenty of boiling water; peel when cold, cut in slanting direction, so as to make oval pieces; peel and cut in small dice two middling-sized onions, put in a pan, with two ounces of butter, fry white, stirring continually with a spoon; add a spoonful of flour, and enough milk to make a nice thickish sauce, add to it three saltspoonfuls of salt, four of sugar, one of pepper, a spoonful of good vinegar, and boil a few minutes; put in the slices to simmer for about twenty minutes, have ready some mashed potatoes, with which make a neat border in your dish one inch high, then put the beetroot and sauce, highly seasoned, in the centre, and serve.

**Teal, a new method.**—Procure four, draw them, then put half a pound of butter upon a plate, with a little pepper, grated nutmeg, parsley, a spoonful of grated crust of bread, the juice of a lemon, and the liver of the teal, mix well together, and with it fill the interior of the teal; cover them with slices of lemon, fold in thin slices of bacon, then in paper, and roast twenty minutes before a sharp fire; take off the paper, brown the bacon, dress them upon a slice of thick toast, letting the butter from the teal run over it, and serve very hot.

**Pig's Cheek, a new method.**—Procure a pig's cheek, nicely pickled, boil well until it feels very tender; tie half a pint of split peas in a cloth, put them into a stewpan of boiling water, boil about half an hour, take them out, pass through a hair sieve, put them into a stewpan, with an ounce of butter, a little pepper and salt, and four eggs, stir them over the fire until the eggs are partially set, then spread it over the pig's cheek, egg with a paste-brush, sprinkle bread-crumbs over, place in the oven ten minutes, brown it with the salamander, and serve.

**Melted Butter.**—Put into a stewpan two ounces of butter, not too hard, also a good tablespoonful of flour, mix both well with a wooden spoon, without putting it on the fire; when forming a smooth paste, add to it a little better than half a pint of water; season with a teaspoonful of salt, not too full, the sixth part that of pepper; set it on the fire, stir round continually until on the point of boiling; take it off, add a teaspoonful of brown vinegar, then add one ounce more of fresh butter, which stir in your sauce till melted, then use where required; a little nutmeg grated may be introduced; it ought, when done, to adhere lightly to the back of the spoon, but transparent, not pasty: it may also, if required, be passed through a tannery or sieve. If wanted plainer, the last butter may be omitted.

**Fritadella (twenty receipts in one).**—Put half a pound of crumb of bread to soak in a pint of cold water; take the same quantity of any kind of roast or boiled meat, with a little fat, chop it up like sausage meat; then put your bread in a clean cloth, press it to extract all the water; put into a stewpan two ounces of butter, a tablespoonful of chopped onions, fry for two minutes, then add the bread, stir with a wooden spoon until rather dry, then add the meat, season with a teaspoonful of salt, half the same of pepper, a little grated nutmeg, the same of lemon peel, stir continually until very hot; then add two eggs, one at a time, well mix together, and pour on a dish to get cold. Then take a piece as big as a small egg, and roll it to the same shape, flatten it a little, egg and bread-crumbs over, keeping the shape, do all of it the same way, then put into a sauté-pan a quarter of a pound of lard, or clean fat, or oil; when hot, but not too much so, put in the pieces, and *sauté* a very nice yellow colour, and serve very hot, plain, on a napkin, or on a border of mashed potatoes, with any sauce or garniture you fancy. These can be made with the remains of any kind of meat, poultry, game, fish, and even vegetables; hard eggs or cold mashed potatoes may be introduced in small quantities, and may be fried instead of *sauté*, in which case put about two pounds of fat in the frying-pan, and if care is used it will do several times. This is an entirely new and very economical and palatable dish, and fit for all seasons, and if once tried would be often repeated; the only expense attending it is the purchase of a small wire sieve for the bread-crumbs. The reason it is called twenty receipts in one is, that all kinds of food may be used for it—even shrimps, oysters, and lobsters.

**Butter for Fritters.**—Take half a pound of flour, one ounce of butter (which melt), the whites of three eggs, well beaten, half a glass of beer, and enough water to make a thick batter.

**New Mode of Making Coffee.**—Choose the coffee of a very nice brown colour, but not black (which would denote that it was burnt, and impart a bitter flavour); grind it at home if possible, as you may then depend upon the quality; if ground in any quantity, keep it in a jar hermetically sealed. To make a pint, put two ounces into a stewpan, or small iron or tin saucepan, which set dry upon a moderate fire, stirring the coffee round with a wooden spoon continually until it is quite hot through, but not in the least burnt: should the fire be very fierce, warm it by degrees, taking it off every now and then until hot (which would not be more than two minutes), when pour over a pint of boiling water, cover close, and let it stand by the side of the fire (but not to boil) for five minutes, when strain it through a cloth or a piece of thick gauze, runce out the stewpan, pour the coffee (which will be quite clear) back into it, place it upon the fire, and, when nearly boiling, serve with hot milk if for breakfast, but with a drop of cold

\* From Soyer's "Modern Housewife."



milk or cream if for dinner. The foregoing proportions would make coffee good enough for any person, but more or less coffee could be used if required; the cloth through which it is passed should be immediately washed and put by for the next occasion. A hundred cups of coffee could be made as here directed in half an hour, by procuring a pan sufficiently large, and using the proper proportions of coffee and water, passing it afterwards through a large cloth or jelly-bag.

*How to Make a Delicious Cup of Tea.*—Before pouring in any water, the teapot, with the tea in it, should be placed in the oven till hot, or heated by means of a spirit-lamp, or in front of the fire (not too close, of course), and the pot then filled with boiling water. The result will be, in about a minute, a most delicious cup of tea, much superior to that drawn in the ordinary way.

*Rhubarb Jam. (Manchester Receipt.)*—Boil gently, for three hours, an equal weight of fine sugar and rhubarb-stalk, with the juice and grated rind of a lemon to each pound of the fruit. When the true flavour of the rhubarb is much liked, the lemon-peel should be omitted. A very good jam may be made with six ounces less of sugar to the pound, by boiling the rhubarb gently for an hour before it is added.

*Coffee, French Fashion.*—To a pint of coffee, made as before directed, add a pint of boiling milk, warm both together until nearly boiling, and serve.

## NEW KITCHEN IMPLEMENTS.

M. Soyer, in his "Modern Housewife," (lately published), describes a Magic Lamp Stove, with which may be cooked, on the breakfast-table, a cuilet, ham, or bacon, or eggs may be poached. In this new and portable apparatus, the heat is given by vapour of spirit of wine passing through a flame: it will cook cuilets, or boil water, in as short a time as the best charcoal; with the *sauté-pan* everything can be cooked as on a charcoal fire; and with a small saucepan anything that may be required in the room of an invalid, where the heat of a fire would not be allowed. In place of the kitchen-range, the hot-plate, and the charcoal stove, M. Soyer recommends a Gas Stove, which is very economical; the fire being left to go out after dinner, and some days not being even lit, it is exceedingly clean. This new stove is placed in the middle of the kitchen: it combines a roasting fire, circulating hot-water boiler, oven, and hot plate, all heated by one fire; the boiler heats the water at the top of the house for the baths, and which can be laid on into any room; the advantage is that it gives more room in the kitchen, in being able to walk all round it; there are also different degrees of heat on the hot plate, and room for the hair-marie pan: the smoke goes under the floor into the old chimney. It is made by Messrs. Bramah and Prestage, of Piccadilly. It could be fitted with a steam-boiler if required, and would be valuable in hotels and taverns: in a cottage, the linen could be dried around it without danger from fire; and it also cures smoky chimneys. There is very little heat arising from it.

### HOW TO FIT UP A KITCHEN.

Among other improvements in kitchen fittings, the dressers are made with drawers and slides, which is very convenient, as anything dirty may be placed upon them, and the cloth be thus saved. The rail above contains all the copper stewpans. An other dresser is used for placing the dishes on when sending up the dinner: it has the covers over it, and underneath, the dripping pan, frying-pan, gridiron—so that nothing is hid from sight, therefore they cannot but be clean. This is a good plan; for those mysterious closets are often found full of dirt, broken plates, old towels, and everything that is wanted to be hidden from sight. There is a little scullery; it is supplied with hot and cold water, and has a sink, in which are washed the plates, dishes, coppers, &c., or anything else; so that all dirt is kept out of the kitchen; but this is every bit as clean as the kitchen. The larder is paved and lined with slate: the window, which is protected by wire, opens to the north. Under the window is the pastry-slab, with ice-drawer under that. In one corner is the meat block and table, with scales to weigh all that comes into the larder. Here is the safe, with a sliding door on pulley, and in which are the vegetable bins; and here, also, is one of Lings's patent ice-safes. The meat hangs from tin hooks. There are two boxes for powdered herbs of all kinds (Makepeaces), and also essences for confectionery. This is called the housewife's box.

The following stock of utensils is considered to be quite complete, and by no means too numerous:—8 copper stewpans, two larger ones holding one gallon and a half, and the next one gallon, the others smaller by degrees to one pint; 1 oval fish-kettle, holding about one gallon and a half—but if by chance you have a turbot, borrow a kettle from the fishmonger; 1 middle-sized braising-pan; 1 preserving-pan; 1 round howl for heating whites of eggs; 2 sauté-pans; 1 omelette-pan; 1 frying-pan; 1 bain-marie; 6 saucepans for the sauce; 1 middle-sized tin pie-mould; 2 tin jelly-moulds; 1 tin flange-mould for fruit; 1 freezing-pot, with every requisite; 2 baking-sheets; 1 gridiron; 1 small salamander; 1 colander-spoon; 1 hottle-jack; 2 spits; 1 dripping-pan; 1 screen; 1 sugar-pan; 2 soup-ladles; 8 copper spoons, two of them colanders; 2 wire baskets; 1 wire sieve; 2 hair sieves; 24 tartlet-pans; 2 tammies; 1 jelly-bag; 12 wooden spoons; 2 paste-brushes; 1 pair of scissors; 2 kitchen-knives; 6 larding-needles; 1 packing-needle; 1 box of vegetable-cutters; 1 box of paste-cutters; 1 meat saw; 1 cutlet-chopper; 1 meat-chopper; 6 meat-hooks, tinned; 1 rolling-pin; 8 kitchen basins; 6 china pie-dishes; 6 earthen bowls for soups and gravies; 4 kitchen table-cloths; 18 rubbers; 12 fish napkins; 6 pudding-cloths; 4 round towels. These utensils, no doubt, appear very numerous, but, at the same time, they are no more than are required; and it is only the first nine articles which are rather expensive: the others can be had at the cost of a few shillings. The linen should be placed in the presses every week, and an exact account kept of it; for it is only by so doing that so small a quantity can be kept in use. The stock consists of 12 pairs of sheets; 10 ditto pillow-cases; 3 dozen of napkins; 2 dozen and a half of various-sized table-cloths, including breakfast, dinner, &c.; 6 servants' table-cloths; 3 dozen towels; 6 round towels; 3 dozen kitchen rubbers; 2 dozen napkins for fish, vegetables, and fruits; 6 pudding-cloths; 2 dozen damask doilies; 1 dozen Berlin wool ditto. Occasionally in the wash are the cover of the carpet, the anti-macassars, and the netted window curtains. Of glass and china, provide the following; they should be counted every month, and the broken ones replaced; 3 dozen wine-glasses; 2 dozen champagne ditto; 2 dozen claret ditto; 3 dozen goblets; 6 water carafes; 6 decanters; 1 liqueur stand; 12 liqueur glasses; 2 glass jugs; 1 celery glass; 1 trifle dish; 8 dessert dishes.—China, 1 full dinner service; 1 common set for kitchen; 1 common tea service for kitchen; 1 good tea service; 1 breakfast service; 1 good dessert service.—The following is the list of Plate: 3 dozen of prongs; 2 dozen of table-spoons; 1 and a half ditto of dessert-spoons; 1 and a half ditto of dessert-forks; 2 ditto of tea-spoons; 6 salt-spoons; 1 cheese knife; 4 butter-knives; 1 asparagus-tongs; 2 sugar tongs; 1 soup-ladle; 4 sauce ladles; 2 gravy-spoons; 2 sugar-ladles; 2 salvers; 1 bread-basket; 4 candlesticks; 1 hot-water dish for haunch of mutton.

## GENERAL POSTAL REGULATIONS, &c.

**RATES OF POSTAGE.**—All letters from one part of Great Britain to another (including the Local Penny Posts and the London Twopenny Post) are charged, if prepaid, and not

Exceeding half an ounce . . . . . 1d.  
Exceeding half an ounce, and not exceeding one ounce . . . 2d.

and so on, at the rate of 2d. for every additional ounce or fraction of an ounce. Unpaid and unstamped letters are charged double postage on delivery.

**HOURS OF POSTING FOR THE EVENING MAILS.**—The Receiving-Houses close at 5 30 P.M.; but letters are received for the evening's dispatch until 6 P.M., if an extra penny stamp is affixed. The Branch Post-offices at Charing Cross, Old Cavendish-street, and Stones-end, Southwark, receive letters until 6 P.M., and until ½ to 7 P.M. by affixing an additional penny stamp. At the Branch Post-Office in Lombard-street, the box remains open without additional fee until 6 P.M., and until 7 P.M. by affixing a penny stamp. At the General Post-Office in St. Martin's-le-Grand until 6, free; and until 7, by payment of the extra charge as at Lombard-street. From 7 to half-past 7 P.M., letters may be posted at the General Post-office upon payment of a fee of sixpence each, which must, as well as the postage, be pre-paid. Letters intended to pass by outward mails to foreign parts must be posted at the above hours.—N.B. Newspapers for the evening mails must be put into the Receiving-Houses before 5 P.M., the Branch offices before 5 30, or General Post Office before 6 P.M. From 6 P.M. to 7 30, on payment of one-halfpenny late fee; except newspapers for foreign parts, which must be posted at the General Post-Office and Branch Offices before 6 P.M., and at the Receiving-Houses before 5 P.M.

**MORNING MAILS** are forwarded to most of the principal towns in England and Wales, and to all parts of Ireland and Scotland, for which the letter-boxes at the Receiving-Houses will be open till 7 A.M. for newspapers, and ½ to 8 A.M. for letters; and at the Branch Offices, Charing-cross, Old Cavendish-street, and the Borough, for newspapers until half-past 7 A.M., and for letters until 8 A.M. At the General Post-Office and the Branch Office in Lombard-street, the boxes will close for newspapers at a quarter before 8 A.M., and for letters at half-past 8 A.M.

Any SINGLE BOOK or PAMPHLET can now be sent through the Post-Office to any part of the United Kingdom if not exceeding 16 oz. in weight, and open at both ends, by affixing six postage stamps; if above 16 oz. 1s., and 6d. for every additional pound or fraction of a pound. The Postmaster-General does not guarantee the delivery of books and pamphlets with the same accuracy and regularity as newspapers and letters, but in no case will the delivery be delayed more than 24 hours after the usual post.

**BRITISH AND COLONIAL PAPERS** between British Colonies, without passing through the United Kingdom, to be free; except that 1d. may be allowed as a gratuity to the master of the vessel conveying them.

**NEWSPAPERS, BRITISH, FOREIGN, OR COLONIAL**, passing between British or Colonial and Foreign ports, and through the British post, to pay 2d.; if not through the British post, 1d.

**NEW POSTAGE STAMPS** intended principally for the pre-payment of foreign letters have been issued. They are of the value of one shilling each, the colour being green, and the form octagonal, and another of the value of tenpence of a brown colour. These stamps may be used for inland as well as foreign postage, but they are chiefly intended for the postage of letters to the United States, India, China, the West Indies, New South Wales, and New Zealand, &c.

**PACKAGES** which in length, breadth, or width exceed twenty-four inches, cannot be forwarded by post between any places within the United Kingdom; except, however, petitions or addresses to her Majesty, or petitions to either House of Parliament forwarded to any Member of either House, or printed votes or proceedings of Parliament, or letters to or from any Government offices or departments.

**MONEY ORDERS.**—With a view to simplicity and economy in the accounts of the Money Order Office, it has been found necessary to lay down the following rules:—1. Every money order issued on or after the 6th October, 1843, must be presented for payment before the end of the second calendar month after that in which it was issued (for instance, if issued in October, it must be presented for payment before the end of December), otherwise a new order will be necessary, for which a second commission must be paid. 2. As already notified to the public, if an order be not presented for payment before the end of the twelfth calendar month after that in which it was issued (for instance, if issued in October and not presented before the end of the next October), the money will not be paid at all. 3. As, after once paying a money order, by whomsoever presented, the office will not be liable to any further claim, the public are strictly cautioned *a*. To take all means to prevent the loss of the money order. *b*. Never to send a money order in the same letter with the information required on payment thereof. *c*. To be careful, on taking out a money order, to state correctly the Christian name as well as the surname of the person in whose favour it is to be drawn. *d*. To see that the name, address, and occupation of the person taking out the money order are correctly known to the person in whose favour it is drawn. 4. Neglect of these instructions will lead to delay and trouble in obtaining payment, and even risk the loss of the money. These instructions, together with some others of minor importance, will be found printed on every money order.

## CONSULATE AND PASSPORT OFFICES.

**AUSTRIA.**—Embassy, 7, Chandos-street, Cavendish-square, between 12 and 2.  
**BELGIUM.**—Legation, 9 A, Weymouth-street, Portland-place, between 11 and 3; delivered next day between 11 and 2, gratis; at the Consul's office, 3, Copthall-court, between 10 and 4—fee 5s.

**BAVARIA.**—The Minister, 3, Hill-street, Berkeley-square, when personally known to him; or at the Consul Office, 33½, Great St. Helen's.

**BAZIL.**—Legation, 41, York-street, Portman-square, between 12 and 2, gratis.

**DENMARK.**—6, Warrnford-court, between 10 and 4—fee 10s. 6d.; under special circumstances at the Embassy, 2, Wilton-terrace, Belgrave-square.

**FRANCE.**—French passport-office, 6, Poland-street, Oxford-street, from 12 to 5; delivered immediately on personal application, and payment of 5s.; also at the Consul's office, 3, Copthall-buildings, between 12 and 4—fee 5s. One passport will include a whole family and servants.

**NAPLES AND SICILY.**—Passport-office, 15, Princes-street, Cavendish-square, Mondays and Thursdays, between 10 and 12; delivered following day between 2 and 3, gratis.

**PORTUGAL.**—Embassy, 57, Upper Seymour-street, Portman-square, between 11 and 4, delivered following day; also at Consul's office, 5, Jeffrey's-square, St. Mary-axe, from 10 to 4.

**RUSSIA.**—106, Fenchurch-street, between 10 and 6—fee 7s.

**RUSSIA.**—2, Winchester-buildings, between 10 and 4; delivered following day—fee 6s. 4d.



## THE QUEEN AND ROYAL FAMILY.

**THE QUEEN.**—VICTORIA, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith, was born May 24th, 1819; succeeded to the throne, June 20th, 1837, on the death of her uncle, King William IV.; crowned, June 28th, 1838, and married, February 10th, 1840, to his Royal Highness Prince Albert. Her Majesty is the only daughter of his late Royal Highness Edward Duke of Kent, son of King George III.

His Royal Highness Francis Albert Augustus Charles Emanuel Busiel, DUKE OF SAXE, PRINCE OF COBURG AND GOTH, K.G., Consort of her Majesty, born August 26th, 1819.

Her Royal Highness Victoria Adelaide Mary Louisa, PRINCESS ROYAL, born November 21st, 1840.

His Royal Highness Albert Edward, PRINCE OF WALES, born November 9th, 1841. Her Royal Highness Alice Mand, born April 25th, 1843.

His Royal Highness Alfred Ernest Albert, born August 6th, 1844. Her Royal Highness Princess Helena Augusta Victoria, born May 25, 1846.

Her Royal Highness Princess Louisa Carolina Alberta, born March 18, 1848. **THE QUEEN DOWAGER.**—Amelia Adelaide Louisa Theresa, sister to the reigning

Duke of Saxe Meiningen, born August 13th, 1792; married July 11th, 1818; crowned September 8th, 1831.

Ernest Augustus, DUKE OF CUMBERLAND, in Great Britain, and KING OF HANOVER, uncle to her Majesty, born June 5th, 1771, married, August 29th, 1815. Issue, George Frederick.

Adolphus Frederick, DUKE OF CAMBRIDGE, uncle to her Majesty, born February 24th, 1774; married, May 2nd, 1818, her Serene Highness Augusta Wilhelmina Louisa, youngest daughter of Frederick, Landgrave of Hesse. Issue, three children.

MARY, Aunt to her Majesty, born April 25th, 1776; married, July 22nd, 1816, her cousin, the Duke of Gloucester, deceased.

Victoria Mary Louisa, DUCHESS OF KENT, born August 17th, 1786; married, in 1818, the Duke of Kent (who died January 23rd, 1820); her Majesty's mother.

Angusta Wilhelmina Louisa, DUCHESS OF CAMBRIDGE, niece of the Landgrave of Hesse, born July 25th, 1795; married, in 1818, the Duke of Cambridge, by whom she has issue, George William, Augusta Caroline, and Mary Adelaide.

George Frederick Alexander Charles Ernest Augustus, K.G., only child of the King of Hanover, Prince Royal of Hanover, cousin to her Majesty; born May 27th, 1819; married, February, 1843, Princess Mary of Saxe Altemberg, and has a son.

George Frederick William Charles, K.G., son of the Duke of Cambridge, cousin to her Majesty, born March 26th, 1819.

Angusta Caroline Charlotte Elizabeth Mary Sophia Louisa, daughter of the Duke of Cambridge, and cousin to her Majesty, born July 19th, 1822; married, June 28th, 1843, Frederick, Hereditary Grand Duke of Mecklenburg Strelitz.

Mary Adelaide Wilhelmina Elizabeth, daughter of the Duke of Cambridge, and cousin to her Majesty, born November 27th, 1832.

## THE QUEEN'S HOUSEHOLD.

Lord Great Chamberlain .. ..	Lord Willoughby D'Eresby
Lord Steward .. ..	Earl Fortescue
Lord Chamberlain .. ..	Marquis of Breadalbane, K.T.
Vice-Chamberlain .. ..	Lord E. Howard
Master of the Horse .. ..	Duke of Norfolk
Clerk Marshal and Chief Equerry ..	Lord Alfred Paget
Treasurer of the Household ..	Lord Marcus Hill
Comptroller of the Household ..	Right Hon. W. S. Lascelles
Lord High Almoner .. ..	Bishop of Oxford
Sub-Almoner .. ..	Rev. G. Goodenough, D.D.
Clerk of the Closet .. ..	Bishop of Chester
Master of the Buckhounds .. ..	Earl of Bessborough
Comptroller of Accounts .. ..	Sir William Martins
Master of the Household .. ..	Major-General Bowles
Captain of the Yeomen of the Guard ..	Marquis of Donegal
Captain of Gentlemen-at-Arms ..	Lord Foley
Lords in Waiting .. ..	Earl of Listowel, Lord Camoys, Lord Waterpark, Lord Elphinstone, Earl of Morley, Lord Byron, Lord Dufferin, Marquis of Ormonde
Mistress of the Robes .. ..	The Duchess of Sutherland
Ladies of the Bedchamber .. ..	Countess of Mount-Edgumbe, Marchioness of Douro, Countess of Desart, Countess of Gainsboro', Countess of Charlemont, Viscountess Jocelyn, Viscountess Canning, Lady Portman
Extra Lady of the Bedchamber ..	Duchess of Norfolk
Physicians .. ..	Charles Locock, M.D., Sir James Clark, Bart., and W. F. Chambers, M.D.
Surgeons .. ..	Sir B. Brodie, Bart., and R. Keate, Esq.

HER MAJESTY'S MINISTERS.  
OF THE CABINET.

First Lord of the Treasury (Premier) ..	Lord John Russell
Lord Chancellor .. ..	Lord Cottenham
Lord President of the Council ..	The Marquis of Lansdowne
Lord Privy Seal .. ..	The Earl of Minto
Secretaries of State ..	Home { Sir George Grey, Bart. Foreign { Lord Palmerston Colonial { Earl Grey
Chancellor of the Exchequer ..	The Rt. Hon. Sir Charles Wood
President of the Board of Control ..	Sir J. C. Hobhouse
President of the Board of Trade ..	Rt. Hon. H. Labouchere
First Lord of the Admiralty ..	The Right Hon. Sir F. Baring, Bart.
Chancellor of the Duchy of Lancaster ..	Lord Campbell
Chief Commissioner Woods and Forests ..	Earl of Carlisle
Postmaster-General .. ..	The Marquis of Clanricarde

## IRELAND.

Lord Lieutenant .. ..	The Earl of Clarendon
Lord Chancellor .. ..	The Right Hon. M. Brady
Chief Secretary .. ..	The Right Hon. Sir W. Somerville, Bart.
Attorney-General .. ..	Right Hon. J. M. Monahan.
Solicitor-General .. ..	J. Hatchell, Esq.

## SCOTLAND.

Lord High Constable .. ..	The Earl of Errol
Lord Privy Seal .. ..	Viscount Melville
Lord Advocate .. ..	Right Hon. A. Rutherford

## GOVERNMENT OFFICES AND OFFICERS.

TREASURY,  
WHITEHALL.

## LORDS COMMISSIONERS.

Lord J. Russell, Sir Chas. Wood, Bart. H. Rich, Esq., R. M. Bellow, Esq., W. G. Craig, Esq.  
Secretaries, the Right Hon. W. G. Hayter, H. Tufnel, Esq.  
Assistant Secretary, Sir C. E. Trevelyan.  
Principal Clerk, S. R. Leake, Esq.  
Solicitor, G. Maule, Esq.

## EXCHEQUER,

## WHITEHALL-YARD.

Chancellor, the Right Hon. Sir Charles Wood, Bart.  
Comptroller, Lord Monteagle  
Assistant, A. Eden, Esq.  
Chief Clerk, F. F. Ottey, Esq.  
Accountant, G. S. Frederick, Esq.

## HOME OFFICE,

## WHITEHALL.

Secretary of State, Sir George Grey, Bart.  
Under-Secretaries, G. C. Lewis, Esq., H. Waddington, Esq.  
Chief Clerk, H. J. Knivett, Esq.  
Private Secretary, H. Brand, Esq.

## FOREIGN OFFICE,

## DOWNING-STREET.

Secretary of State, Lord Palmerston  
Under-Secretaries Lord Eddisbury, H. U. Addington, Esq.  
Chief Clerk, G. L. Conyngham, Esq.  
Private Secretary, the Hon. Spencer Ponsonby

## COLONIAL OFFICE,

## DOWNING-STREET.

Secretary of State, Earl Grey  
Under-Secretaries, B. Hawes, Esq., H. Merivale, Esq.  
Assistant Secretary, T. F. Elliot, Esq.  
Chief Clerk, Peter Smith, Esq.  
Private Secretary, the Hon. H. C. Grey.

## IRISH OFFICE,

18, GREAT QUEEN-STREET, WESTMINSTER.  
Chief Secretary, the Right Hon. Sir W. M. Somerville, Bart.  
Chief Clerk, George Trundle, Esq.  
Assistant, Hon. S. D. Montague  
Private Secretary, H. Meredith, Esq.  
Counsel, E. Batty, Esq.

## BOARD OF TRADE,

## WHITEHALL.

President, the Rt. Hon. H. Labouchere  
Vice-President, Earl Granville. The Archbishop of Canterbury, the Cabinet Ministers, and the Right Hon. C. Arbuthnot.  
Secretaries, G. R. Porter, Esq., Sir Denis Le Marchant, Bart.  
Secretaries, Assistants, F. Lock, Esq., H. Hobart, Esq.  
Private Secretary to the President, T. Baring, Esq.  
Assistant Legal Secretary, Stafford H. Northcote, Esq.

## BOARD OF CONTROL,

## CANNON-ROW, WESTMINSTER.

President, Sir J. Cam Hobhouse, Bart., and the Cabinet Ministers  
Secretaries, James Wilson, Esq., M.P., the Hon. John Elliot  
Private Secretary, A. Hobhouse, Esq.  
Solicitor, R. Groom, Esq.

## POOR-LAW BOARD,

## 1 AND 2, SOMERSET-PLACE.

Commissioners, the Lord President of the Council, the Lord Privy Seal, the Secretary of State for the Home Department, the Chancellor of the Exchequer.

President, the Right Hon. Mathew Talbot Baines.  
Secretaries, George Nicholls, Esq., C.B., Lord Ebrington, M.P.  
Assistant Secretaries, William Golden Lumley, Esq., Barrister-at-Law, and H. Fleming, Esq.

Inspectors, Edward Gulson, Esq., W. H. Toovey Hawley, Esq., Richard Hall, Esq., Barrister-at-Law, Robert Waile, Esq., Sir J. James Walsham, Bart., Alfred Austin, Esq., Barrister-at-Law, G. G. Wandisford Pigott, Esq., J. T. Graves, Esq., Barrister-at-Law, Andrew Doyle, Esq., Barrister-at-Law, J. Manwaring, Esq., H. B. Farnall, Esq., E. Hurst, Esq., Viscount Courtney.  
Private Secretary to the President, Geo. Buller, Esq.  
First Clerk, Mr. Francis Fletcher  
Board Clerk and Accountant, Mr. Hugh Owen

ADMIRALTY,  
WHITEHALL.

Lords Commissioners, Sir Francis Baring, Rear-Admiral Dundas, Capt. the Hon. F. Berkeley, Captain Lord John Hay, the Hon. Wm. Cowper, Captain Milne  
Secretaries, John Parker, Esq., M.P., Capt. W. A. B. Hamilton, R.N.  
Private Secretary, Capt. Charles Eden  
Chief Clerk, J. H. Haye, Esq.  
Hydrographer, Admiral Sir F. Beaufort  
Assistant, M. Walker, Esq.  
Civil Architect, Colonel Irvine

## CIVIL DEPARTMENT, SOMERSET HOUSE.

Inspector-General, Sir W. Burnet  
Director-General of Works, Col. Irvine  
Storekeeper, Hon. R. Dundas  
Surveyor, Sir B. Walker  
Assistant Surveyor, — Edye, Esq.  
Comptroller of Steam Department, Capt. A. Ellice  
Chief Engineer J. T. Lloyd, Esq.  
Chief Clerks, J. M. Boddy, J. C. Parkin, W. Leyburn, B. Fosset, Wm. Scamp, Esqs.

Accountant, J. T. Briggs, Esq.  
Deputy Accountant, O.B. Woolsey, Esq.  
Vice-Chief, J. Meek, Esq.

ROYAL OBSERVATORY,  
GREENWICH.

Astronomer Royal, G. B. Airy, Esq., M.A. D.C.L., F.R.S., P.R.A.S., &c.  
First Assistant, Rev. R. Main, M.A., F.R.A.S.

**ASTRONOMICAL DEPARTMENTS.**  
Circle Superintendent, J. Henry, Esq.  
Transit Superintendent, T. Ellis, Esq.  
Altitude and Azimuth, E. Dunkin, Esq., F.R.A.S.

MAGNETICAL AND METEOROLOGICAL  
DEPARTMENT.

Superintendent, James Glaisher, Esq., F.R.S., F.R.A.S.

ROYAL HOSPITAL FOR SEAMEN,  
GREENWICH.

Governor, Admiral Sir Charles Adam, K.C.B.  
Lieutenant-Governor, Rear-Admiral Sir James Alexander Gordon, K.C.B.

Captains, G. Moubray, T. Dickenson, T. L. P. Laughaire, W. C. C. C. Commanders, C. Robinson, W. C. C. Dallyell, J. Corby, E. W. Garrett.

Lieutenants, F. Bedford, W. Rivers, M. Fitton, J. W. Rouse, D. O'Brien Casey, B. J. Lovell, J. Dornford, G. M. Monk.

Masters, T. Penrose, H. Smartley.  
Chaplains, Rev. J. K. Goldney, Rev. E. Kitson

Medical Inspector of Hospitals, Sir John Liddell, M.D.  
Deputy Medical Inspector of Hospitals, Alexander Nisbet, M.D.

Surgeon, James M'Farnham  
Dispenser, J. Whitmarsh.

Assisting Dispenser, A. Yair.  
Assistant Surgeons, R. F. Cullen, N. Lyttelton, W. T. Domville, V. C. Clarke.

## CIVIL DEPARTMENT.

Commissioners, the Earl of Granville (Paymaster-General), the Earl of Carlisle, R. Adm. Sir H. Hart, K. C.H., Lt. Adm. Sir W. O. Pell, G. Tierney, Esq.

Secretary, J. A. Lethbridge, Esq.

ROYAL HOSPITAL SCHOOLS,  
GREENWICH.

Superintendent, Lieut. John W. Ronse  
Chaplain, Rev. Geo. Fisher, M.A., F.R.S.  
Head Master of the Nautical School, E. Riddle, Esq., F.R.A.S.  
Head Master of Upper School, Rev. J. Hill.

Head Master of Lower School, E. Hughes, Esq.

WAR OFFICE,  
WHITEHALL.

Secretary at War, Rt. Hon. Fox Maule  
Deputy, L. Sullivan, Esq.  
Chief Examiner, R. C. Kirby, Esq.  
First Clerk, J. Borrow, Esq.  
Senior Clerks, J. Sandham, J. Crooms, W. Anderson, T. L. Matthew, R. H. Stewart, A. J. Moorhead, J. P. Parsey, H. Kendrick, and E. Biddle, Esqs.  
Private Secretary, A. G. Carmichael, Esq.



# THE ILLUSTRATED LONDON ALMANACK FOR 1850.

## PAYMASTER-GENERAL'S OFFICE,

### WHITEHALL.

Paymaster-General, Earl Granville.  
Assistant Paymaster-General, W. G. Anderson, Esq.  
Chief Clerks, T. Morris, J. Perrior, and H. A. Harrison, Esqs.

## COMMANDER-IN-CHIEF'S OFFICE

### HORSE-GUARDS.

Commander-in-Chief, Duke of Wellington

Private Secretary, A. Greville, Esq.  
Military Secretary, Lieut.-General Lord F. Somerset

Aides-de-Camp, Colonel Hon. C. Anson, Lieut.-Col. Marquis of Douro, Capt. Earl of March, Captain Marquis of Worcester

Assistants to Military Secretary, F. H. Lindsay, Esq., F. Fergusson, Esq.

## ADJUTANT-GENERAL'S OFFICE,

### HORSE-GUARDS.

Adjutant-General, Sir J. Macdonald  
Deputy, Major-Gen. G. Brown  
First Clerk, Richard Cannon, Esq.  
Confidential Clerk, E. G. Syms, Esq.

## QUARTER-MASTER GENERAL'S OFFICE,

### HORSE-GUARDS.

Quarter-Master-General, General Sir J. W. Gordon

Assistant, Colonel J. Freeth  
Deputy, Major Enoch  
First Clerk, T. Marsh, Esq.  
Confidential Clerk, J. O'Neil, Esq.

## LAW OFFICERS OF THE CROWN.

Attorney-General, Sir J. Jervis.  
Solicitor-General, Sir J. Romilly.

## ADMIRALTY COURT,

2, PAUL'S BAKEHOUSE-COURT, DOCTORS' COMMONS.

Judge, Rt. Hon. S. Lushington, D.C.L.  
Dean of the Arches, the Right Hon. Sir Herbert Jenner Fust.

Registrar, H. B. Swaby, Esq.  
Queen's Advocate, Sir J. Dodson, LL.D.

Admiralty Adv., J. Phillimore, D.C.L.

Queen's Proctor, F. H. Dyke, Esq.

Admiralty Proctor, W. Townsend, Esq.

## JUDGE ADVOCATE-GENERAL'S OFFICE,

35, GREAT GEORGE-ST., WESTMINSTER.

Judge Advocate-General, the Right Hon. Sir David Dundas, M.P.

Deputy, Francis Newman Rogers, Esq., M.P.

First Clerk, William Henry Hughes, Esq.

Second Clerk, John John St. John, Esq.

Third Clerk, Robert C. Munroe, Esq.

## BOARD OF ORDINANCE,

86, FLEET STREET.

Master-General, Marquis of Anglesey.

Surveyor-General, Major-Gen. C. R. Fox.

Clerk, the Hon. G. Anson.

Storekeeper, Sir Thomas Hastings.

Secretary to the Master-General, Lord C. Paget.

Secretary to the Board, R. Byham, Esq.

Aides-de-Camp, Major Thurlow.

## WOODS AND FORESTS,

2, WHITEHALL-PLACE.

Commissioners, Earl of Carlisle, Alex. Milne, Esq., C.B., Hon. C. A. Gore

RANGERS, KEEPERS, &c.

Windsor Great Park, Prince Albert.

Bushy Park, Queen Dowager.

Hyde Park, H.R.H. Duke of Cambridge.

St. James's Park, Duke of Cambridge.

Richmond Park, Duke of Cambridge.

Greenwich Park, the Earl of Aberdeen.

Hampton Court, Lady Bloomfield.

New Forest, Duke of Cambridge.

Whitbury Forest, Duke of Grafton.

Wychwood Forest, Earl of Mornington.

Wytham Forest, Lord Churchill.

Dean Forest, Earl of Carlisle.

## QUEEN'S MINT,

LITTLE TOWER-HILL.

Master Worker, R. L. Sheil, Esq.

Deputy, J. M. Morrison, Esq.

Comptroller, W. H. Barton, Esq.

Chief Engraver, Wm. Wyon, Esq.

Assistant, Leonard Wyon, Esq.

Chief Medallist, B. Pistrucci, Esq.

Assayer, H. B. Ngley, Esq.

## STATE PAPER OFFICE,

12, DUKE-STREET, WESTMINSTER.

Keeper, Right Hon. H. Hobhouse

Deputy, C. Lechmere, Esq.

Chief Clerk, K. Lemon, Esq.

Junior Clerk, T. Temple, Esq.

### PRIVY SEAL,

28, ABINGDON-STREET, WESTMINSTER.

Lord Privy Seal, Earl of Minto

Private Secretary, Hon. C. J. B. Elliot

Chief Clerk, J. G. Donne, Esq.

(By Patent) R. Eden, Esq.

Keeper of Records, R. Eden, Esq.

Clerk, W. Goodwin, Esq.

### SIGNET OFFICE,

28, ABINGDON-STREET.

Keepers of the Signet, the Secretaries of State.

Chief Clerks, Rev. W. H. E. Bentinck, C. S. Grey, Esq.

Deputy, T. H. Plasket, Esq.

Keeper of the Records, H. W. Sanders, Esq.

### TITHE COMMISSION,

9, SOMERSET PLACE.

W. Blamire, Esq., T. W. Buller, Esq., Rev. Richard Jones, M.A.

### REGISTRAR OF DESIGNS OFFICE,

4, SOMERSET-PLACE.

Registrar, Clement Johnson, Esq.

Assistant Registrar, Hon. E. C. Curzon

Chief Clerk, J. Hill Bowen, Esq.

### COLONIAL LAND AND EMIGRATION COMMISSIONERS,

9 AND 15, PARK-STREET, WESTMINSTER.

T. W. Clinton Murdoch, Esq., Charles Alex. Wood, Esq., Fredk. Rogers, Esq.

Secretary, S. Walcott, Esq.

### CUSTOM HOUSE,

Chairman, Sir Thomas Fremantle.

Deputy, the Right Hon. G. R. Dawson.

Commissioners, H. Richmond, Esq., S. G. Lushington, Esq., T. P. Ducken-

son, Esq., F. Goulburn, Esq., C. C. Smith, Esq., Capt. Saurin, Hon. S. E. Spring Rice

Secretary, C. Scovell, Esq.

Assistant, W. Maclean, Esq.

Receiver-General, Sir F. Doyle

Comptroller-General, W. Dickinson, Esq.

Solicitor, J. G. Walford, Esq.

Surgeon, J. O. McWilliam, Esq., M.D.

### INLAND REVENUE OFFICES.

EXCISE DEPARTMENT, BROAD-STREET,

CITY; STAMP AND TAX DEPARTMENT, SOMERSET HOUSE.

Chairman, John Wood, Esq.

Deputy Chairman, J. Thornton, Esq.

Commissioners, Hart Davis, Charles

Powlett Rushworth, Thomas Harrison,

Henry Frederick Stephenson,

Charles John Herries, Alfred Mont-

gomery, Charles Pressly, Esqs.

Secretary, J. C. Freeling, Esq.

Assistant Secretary, T. Keogh, Esq.

Solicitor, Joseph Timm, Esq.

Assistant Solicitor, Hugh Tisley, Esq.

Receiver-General, W. T. Thornton, Esq.

Comptroller of Legacy Duties, Charles Trevor, Esq.

### METROPOLIS ROADS,

22, WHITEHALL-PLACE.

Secretary, J. L. Panter, Esq.

Surveyor-General, Sir Jas. McAdam.

Accountant, V. C. Wright, Esq.

Inspector, H. Brown, Esq.

Solicitor, J. W. Lyon, Esq.

### OFFICE OF METROPOLITAN BUILDINGS,

6, ADELPHI-TERRACE.

Registrar, A. Symonds, Esq.

Official Referees, W. Hosking, Esq., A. Paynter, Esq., J. Shaw, Esq.

Examiners, Philip Hardwicke Esq., J. Pennethorne, Esq., T. Cubitt, Esq.

### GENERAL REGISTER OFFICE,

7 AND 8, SOMERSET-PLACE, SOMERSET HOUSE.

Reg.-General, George Graham, Esq.

Chief Clerk, Thomas Mann, Esq.

### STATISTICAL DEPARTMENT.

Superintendent, William Farr, Esq.

### RECORD DEPARTMENT.

First Clerk, Edward Edwards, Esq.

Assistant, William Owen, Esq.

### CORRESPONDENCE DEPARTMENT.

First Clerk, George Sowray, Esq.

### ACCOUNTANT'S DEPARTMENT.

First Clerk, Charles Henry Anderson, Esq.

### RAILWAY BOARD,

BOARD OF TRADE, WHITEHALL.

Commissioner, the Right Hon. H. Labouchere (President), Earl Granville,

Right Hon. Sir E. Ryan, Col. Alderson

Secretary, Capt. Harries, R.E.

## CITY OFFICERS.

### LORD MAYOR.

Elected September 29th—Sworn in November 9th.

The Right Honourable THOMAS FARNCOMB, Bassishaw.

### SHERIFFS.

Elected 24th June—Sworn in 28th September.

Wm. Lawrence, Esq., Alderman. | Donald Nicoll, Esq.

### UNDER-SHERIFFS.

J. J. Millard, Esq. | D. W. Wire, Esq.

### ALDERMEN.

THE FOLLOWING HAVE NOT PASSED THE CHAIR.

	When chosen Aldermen.
Musgrove, John, Esq., Broad-street; 18, Old Broad-street ..	1842
Hunter, William, Esq., Coleman-street; 10, Finsbury Circus ..	1843
Challis, Thomas, Esq., Cripplegate; 32, Wilson-street, Finsbury	1843
Sidney, Thomas, Esq., M.P., Billingsgate; 8, Ludgate-hill ..	1844
Moon, F. G., Esq., Portsoken; 20, Threadneedle-street ..	1844
Salomons, David, Esq., Cordwainer; 1, Shorter's-court ..	1848
Finnis, Thomas, Quesed, Esq., Tower; Tower-street ..	1848
Lawrence, William, Esq., Bread-street; 30, Bread-street ..	1848
Carden, William, Esq., Dowgate; 2, Exchange Buildings ..	1849

THE FOLLOWING HAVE PASSED THE CHAIR.

Hunter, Sir C. S. Bart., Bridge Without; 23, Euston-square ..	1804
Thompson, W., Esq., M.P., Cheap; Upper Thames-street ..	1821
Key, Sir John, Bart., Langbourn; 3, Abchurch Lane ..	1823
Laurie, Sir Peter, Knt., Aldersgate; 7, Park-square, Regent's-park	1826
Farebrother, C., Esq., Lime-street; 6, Lancaster-place, Strand	1826
Copeland, W. Esq., M.P., Bishopsgate; 37, Lincoln's Inn-fields	1829
Kelly, T., Esq., Farringdon Within; 17, Paternoster-row ..	1830
Wilson, Samuel, Esq., Castle Baynard; 24, St. Paul's Church-yard	1831
Marshall, Sir C., Knt., Bridge Within; 43, Russell-square ..	1832
Pirie, Sir John, Bart., Cornhill; 1, Birch Lane ..	1834
Humphrey, J., Esq., M.P., Aldgate; Hay's Wharf, Southwark	1835
Magnay, Sir William, Bart., Vintry; College-hill ..	1838
Gibbs, Michael, Esq., Walbrook; 33, Walbrook ..	1838
Carroll, Sir George, Candlewick; 34, Caveudish-square ..	1840
John K. Hooper, Esq., Queenhithe ..	1840
Sir James Duke, M.P., Farringdon Without ..	1840

## EAST INDIA COMPANY.

Six Directors are elected annually in April, when six go out by rotation. Each Director serves four years. The figure prefixed denotes the number of years each has to serve.

### DIRECTORS.

- (2) CHAIRMAN—Major-General Sir Archibald Galloway, K.C.B., 18, Upper Harley-street.
- (3) DEPUTY CHAIRMAN—John Shepherd, Esq., Holly Lodge, Walton-on-Thames
- (4) Sir Robert Campbell, Bart.
- (1) John Loch, Esq.
- (1) Charles Mills, Esq.
- (2) John Masterman, Esq., M.P.
- (1) Henry St. George Tucker, Esq.
- (3) Henry Alexander, Esq.
- (1) Henry Shank, Esq.
- (2) Russell Ellice, Esq.
- (2) Sir Richard Jenkins, G.C.B.
- (1) John Cotton, Esq.
- (2) William Butterworth Bayley, Esq.
- (3) Francis Warden, Esq.
- (4) Sir Henry Wilcock, K.L.S.
- (4) Sir James Weir Hogg, Bart., M.P.
- (1) W. H. Chicheley Plowden, Esq., M.P.
- (4) Lieut.-Col. William Henry Sykes.
- (3) Major James Oliphant
- (4) John Clarmont Whiteman, Esq.
- (3) Hon. Wm. Henry Leslie Melville.
- (2) Ross Donnelly Mangles, Esq., M.P.
- (3) Major-Gen. James Caulfield, C.B.
- (4) William Joseph Eastwick, Esq.

THE FOLLOWING GENTLEMEN ARE OUT BY ROTATION.

Lieutenant-General Sir James Law	John Petty Muspratt, Esq.
Lushington, G.C.B.	Martin Tucker Smith, Esq., M.P.
George Lyall, Esq.	William Wigram, Esq.
Elliot Macnaghten, Esq.	

## BANK OF ENGLAND.

GOVERNOR—H. J. Prescott Esq.—DEPUTY GOVERNOR—Thos. Hankey, Jun., Esq.

### DIRECTORS.

Thomas Baring, Esq.	Alexander Matheson, Esq.
Henry Wollaston Blake, Esq.	James Morris, Esq.
Henry Hulke Berens, Esq.	Sheffield Neave, Esq.
Arthur Edward Campbell, Esq.	George Warde Norman, Esq.
William Cotton, Esq.	John Horsley Palmer, Esq.
Bonsmy Dobree, Esq.	John Oliver Hanson, Esq.
Charles Pascoe Grenfell, Esq.	Sir John Henry Pelly, Bart.
John Benjamin Heath, Esq.	Thomas Charles Smith, Esq.
John Gelibrand Hubbard, Esq.	William Thompson, Esq., Alderman.
George Lyall, Junior, Esq.	Thomas Tooke, Junior, Esq.
James Malcolmson, Esq.	Thomas Matthias Weguelin, Esq.
Thomas Masterman, Esq.	Francis Willis, Esq.

## LAW COURTS.

CHANCERY.—Lord High Chancellor, Lord Cottenham. Master of the Rolls, Lord Langdale. Vice Chancellor of England, Sir L. Shadwell. First Vice-Chancellor, Sir James L. K. Bruce; Second ditto, Sir James Wigram.

QUEEN'S BENCH.—Lord Chief Justice, Lord Denman. Judges, Sir John Patteson, Sir John T. Coleridge, Sir Wm. Wightman, Sir Wm. Erie.

COMMON PLEAS.—Lord Chief Justice, Sir Thos. Wilde. Judges, Sir Wm. Hen. Maule, Sir C. Cresswell, Sir Edw. Vaughan Williams, Sir Thos. N. Talfourd.

EXCHEQUER.—Lord Chief Baron, Sir Frederick Pollock. Barons, Sir James Park, Sir Edw. H. Alderson, Sir Robert M. Rolfe, Sir Thomas J. Platt.

## COURT OF BANKRUPTCY.

Birmingham, John Balguy, Q.C., Esq., and Edmund Robert Daniell, Esq.  
Liverpool, Ebenezer Ludlow, Esq., Sergeant, and H. J. Perry, Esq.  
Manchester, Walter Skirrow, Esq., and Wm. Thos. Jemmett, Esq.  
Leeds, Martin John West, Esq., and W. S. Ayrton, Esq.  
Bristol, H. J. Stephen, Esq., Serjeant, and Richard Stevenson, Esq.  
Exeter, Montague Baker Bere, Esq.,  
Newcastle, N. Ellison, Esq.























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